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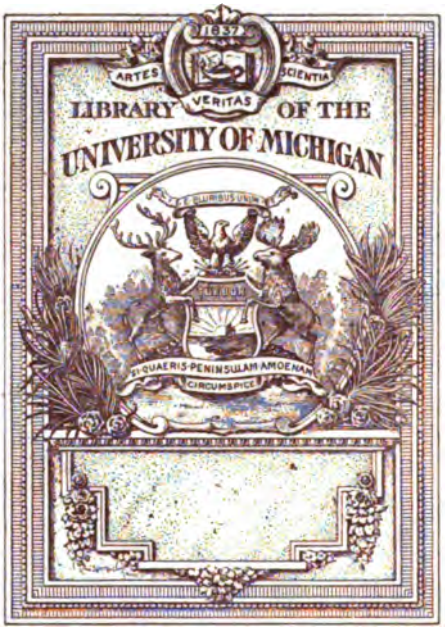
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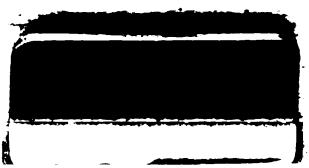

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DEPARTMENT OF COMMERCE AND LABOR

BUREAU OF MANUFACTURES

MONTHLY

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CONSULAR AND TRADE

REPORTS

JANUARY, 1907

No. 316

WASHINGTON

GOVERNMENT PRINTING OFFICE

1907

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MONTHLY CONSULAR and TRADE REPORTS

Washington, D. C. JANUARY, 1907 No. 316

COTTON.

WORLD-WIDE INDUSTRY.

DOMINATION OF THE UNITED KINGDOM.

PROGRESSIVE GAINS IN EXPORT OF BRITISH CLOTHS.

The steady advance of the United Kingdom's sales abroad of cotton goods is strikingly shown in its official figures. The total amount of cotton fabrics exported for the nine months of 1906 ending September 30 was valued at $276,052,449, an increase of $20,885,138 over the same period of 1905 and of nearly $50,000,000 over the first nine months of 1904. The advances by division in all lines of cotton goods, including piece goods, for the nine months periods were:

Articles.	1904.	1905.	1906.
Cotton yarn and twist	$31,615,840	$35,987,460	$42,531,084
Piece goods:			
Gray or unbleached	65,315,378	78,443,427	84,990,230
Bleached	59,478,363	68,393,766	71,856,884
Printed, including shawls	45,902,874	45,471,592	51,596,628
Dyed	57,080,482	62,858,526	67,608,707
Hosiery	1,813,676	1,491,898	1,888,601
Thread for sewing	12,298,589	12,187,725	14,205,410
Other cotton textiles	12,159,071	11,303,380	12,636,538
Total	285,664,273	316,137,774	347,314,082

Great Britain's sales to principal countries of gray and bleached cotton goods for the first nine months of 1906, as compared with the same periods of the two previous years, were as follows:

Countries.	Bleached goods.			Gray goods.		
	1904.	1905.	1906.	1904.	1905.	1906.
Portugal	$766,964	$676,496	$992,468	$171,724	$179,899	$185,900
Turkey	2,718,027	3,556,155	4,862,456	3,439,019	3,976,236	5,185,829
Belgium	291,708	391,840	450,000	1,761,575	2,153,562	3,443,812
Egypt	3,357,023	4,198,282	4,104,639	3,439,019	2,294,223	5,185,829
Morocco	1,408,388	1,396,945	1,559,051	50,000	65,312	60,000
Foreign West Africa	697,656	915,826	1,039,946	179,978	296,987	149,500
Dutch East Indies	2,185,515	2,825,397	2,993,573	1,576,784	1,231,006	1,826,864
Philippines	541,056	658,067	788,674	15,000	25,417	40,900
China (including Hongkong)	6,913,539	10,583,722	8,878,199	7,988,393	14,492,519	10,699,000
Japan	296,369	1,006,601	959,790	439,036	2,248,582	2,540,862

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Countries.	Bleached goods.			Gray goods.		
	1904.	1905.	1906.	1904.	1905.	1906.
Cuba	$882,918	$686,370	$945,433	$273,648	$410,080	$243,578
Mexico	406,876	434,180	609,338	31,250	37,525	40,300
Central America	469,252	492,211	531,693	337,685	285,215	244,541
Colombia and Panama	487,418	361,537	787,846	67,570	73,303	145,021
Venezuela	445,585	301,279	675,416	111,450	32,420	56,715
Peru	342,659	521,707	558,338	42,553	51,784	37,800
Chile	669,045	1,281,125	1,528,056	403,797	511,892	727,297
Brazil	1,207,850	1,405,776	1,552,661	232,224	95,387	68,125
Uruguay	314,268	611,392	679,250	172,735	308,068	255,320
Argentina	1,996,179	2,226,763	3,286,264	972,807	840,386	1,014,188
British South and West Africa	1,277,427	1,532,961	1,627,265	272,212	405,164	462,920
India and Ceylon	19,198,507	19,325,192	16,742,891	37,804,685	41,689,558	45,567,481
Straits Settlements	1,403,576	1,845,862	1,967,350	1,047,075	1,331,118	1,933,143
New Zealand	531,995	454,277	643,497	313,918	296,472	402,323
Australia	2,378,150	2,240,059	2,960,462	735,517	770,162	1,006,956
British West Indies and Guiana	541,986	633,112	720,611	128,027	137,760	192,732

In printed piece and dyed goods Great Britain also continued in finding still greater markets in Asia, where her sales for the nine months periods ending September 30, were:

Countries.	Printed goods.			Dyed goods.		
	1904.	1905.	1906.	1904.	1905.	1906.
China (including Hongkong)	$1,307,473	$1,635,664	$2,158,770	$9,871,924	$11,303,808	$12,509,160
India and Ceylon	12,456,678	12,320,635	13,245,587	8,047,175	9,572,261	8,777,117
Japan	197,740	604,559	1,193,484	663,293	1,774,043	1,778,521
Straits Settlements	726,676	858,372	853,632	1,033,679	932,923	934,981
Persia	485,434	615,135	618,133	307,426	274,620	344,217

Great Britain's total cotton-cloth sales to China for the first nine months of 1906, were $34,245,129, a decrease of only $3,770,584 over the same period last year, while the American decrease was $10,150,581, for China and Hongkong. The British loss on bleached and gray goods was about half that of America's total loss, but the English exporters made up a large part of the shortage by much larger sales of dyed and printed goods.

AMERICAN SALES.

FOREIGN SALES TEN MILLION DOLLARS LESS THAN LAST YEAR.

The cotton-cloth exports of the United States for the nine months of 1906 ending September 30, fell off by nearly $10,000,000, as compared with the same period of 1905, but were still $11,000,000 in excess of the 1904 period. The following shows the total shipments of cotton manufactures for the first nine months of the years named. The figures are from the summary of imports and exports furnished by the Bureau of Statistics of the Department of Commerce and Labor.

Cotton cloths.	1904.	1905.	1906.
Uncolored[a]	$11,416,691	$30,877,439	[b] $15,858,881
Unbleached[a]			4,288,966
Bleached[c]			671,619
Dyed, colored, or printed	3,909,005	5,326,767	5,551,382
Wearing apparel, cotton	2,191,352	2,858,834	3,665,265
Waste, cotton	1,121,729	821,947	1,473,714
Yarn, cotton	175,612	241,324	299,691
All other cotton manufactures	2,493,638	2,548,795	2,556,744
Total	21,308,027	42,675,106	34,361,262

[a] Included in "Bleached" or "Unbleached" after June 30, 1906.
[b] Figures are for six months, January to June, 1906.
[c] Included in "Uncolored" prior to July 1, 1906.

That the reader may see just where the American losses and gains in cotton-cloth sales occurred the following statistics are introduced for the first nine months of the years in review:

Exported to—	1904.		1905.		1906.	
	Yards.	Dollars.	Yards.	Dollars.	Yards.	Dollars.
United Kingdom	1,450,624	177,847	2,395,839	298,636	2,269,867	277,974
Germany	70,288	8,004	120,817	10,113	334,352	26,171
Other Europe	797,910	69,202	1,720,049	127,515	1,256,972	191,120
British North America	6,857,656	598,726	7,532,004	569,446	7,353,022	634,995
Central American States and British Honduras	17,538,210	996,807	21,332,317	1,164,421	21,036,627	1,209,301
Mexico	2,131,155	149,786	2,836,898	239,850	1,609,708	168,506
Cuba	9,696,851	506,282	19,568,562	953,148	11,799,811	702,352
Other West Indies and Bermuda	13,649,479	841,763	20,027,876	1,127,543	25,378,269	1,499,099
Argentina	1,545,453	144,995	2,884,931	346,497	1,574,219	162,720
Brazil	5,925,121	455,427	7,777,759	585,028	5,238,789	353,002
Chile	8,516,757	488,258	10,954,509	637,727	8,520,747	540,052
Colombia	10,389,784	577,724	7,218,577	365,641	11,798,723	593,226
Venezuela	4,604,370	262,524	5,838,443	314,314	5,106,317	342,327
Other South America	4,666,353	299,360	5,986,627	370,308	4,455,544	299,811
Chinese Empire	127,772,960	7,319,958	431,673,268	25,566,286	251,740,517	15,416,152
British East Indies	3,524,062	237,999	6,882,872	483,000	5,002,652	368,995
Hongkong	174,132	29,081	398,327	55,343	412,601	54,896
Japan	2,077,793	260,501	10,269,066	813,774	713,319	54,683
British Australasia	4,232,737	385,006	5,063,299	483,883	6,536,828	591,449
Philippine Islands	4,890,100	232,300	9,127,114	440,344	7,763,151	510,049
Other Asia and Oceania	17,456,850	973,833	17,051,045	943,411	32,832,638	1,939,637
British Africa	4,702,460	279,108	5,237,823	270,476	6,193,945	370,962
All other Africa	488,566	36,255	492,044	42,503	729,895	58,369
Total cloths	253,159,670	15,325,696	603,040,366	36,204,206	419,658,513	26,365,848

GREAT BRITAIN.

EXTENSION OF MILLS IN LANCASHIRE—INCREASED EXPORTS OF FABRICS.

Special Agent William Whittam, jr., who has been investigating the cotton industry in Lancashire, in which county this greatest of British industries is mainly located, has furnished a brief report describing some of the standard cotton cloths that are largely exported by Manchester manufacturers. Mr. Whittam has obtained samples of some of the leading fabrics, which he will forward to the Bureau of Manufactures, for the use of cotton manufacturers of the United States. His letter follows:

Lancashire is the greatest cotton manufacturing area in the world, and Manchester is its business center. It will be useless to go over details already well known to American cotton manufacturers beyond alluding to the enormous increase in spindles in the area during the last three years. In that time approximately 8,000,000 new spindles have been added to the productive capacity of the area, and the growth in the number of new looms has about kept pace with the increased spindleage. Nor is the end yet in sight. Not less than six large new spinning mills are now (October 29) being quietly organized in the Oldham district. While the British home trade in manufactured cottons is a large one, it is small when compared with her gigantic export trade. Returns just published for the nine months ended September 30 give 4,748,714,700 yards as the outgo of cotton cloth, compared with 4,603,148,100 yards for the corresponding nine months of last year. I give these figures to show our relative insignificance as exporters of manufactured cottons, and I have mentioned the great

development in mill building to emphasize the fact that when these additional spindles and looms are all in operation competition for trade in foreign markets will be greatly intensified.

STANDARD EXPORT CLOTHS.

There are many standard varieties of export cloths exported from Great Britain in large quantities which are not made in the United States, but which can be produced there without material changes in the equipment or internal organization of most of our mills now making staple goods for the American and Chinese markets.

An example of one class of such fabrics is T cloths, of which I am sending two full-piece samples to the Bureau of Manufactures. They are sold in South and Central America, China, Japan, India, and to some extent in the Balkan States. They are heavily sized goods and always measure 24 yards to the piece, measured "long stick" (36½ inches to the yard), are made from coarse yarns, and vary in weight from 4 to 9 pounds to the piece.

Export print cloths embrace but a limited range in the gray, while the printed patterns cover a very large number of styles. They are shipped chiefly to Latin America, the Levant, British East Indies, the Orient, and in some quantity to every nonmanufacturing country in the world. I send to the Bureau two full-length type pieces, the particulars of which are as follows:

GRAY EXPORT SHIRTINGS.

Gray shirtings are an important sort of export goods, being from medium to heavily sized; some of these carry as much as 159 per cent of size in the warp. They are 37½ yards, long stick, to the piece, but vary in width from 38 to 59 inches, and in sley and pick from 48 by 48 to 76 by 72. They are made to weight, thus: A 39-inch 64 by 60 must weigh 8¼ pounds, a 45-inch 9 pounds, and a 50-inch wide piece 10 pounds. The principal purchasing countries are India, China, Japan, Turkey, and the Levant. A better quality is made and bleached for the same markets and Egypt.

I am sending to the Bureau of Manufactures a sample piece of "medium size." Upon examination of the samples American cotton manufacturers will at once see that the goods described in this report can be made in many of our mills as at present arranged, and with markets for the same fabrics in so many countries the development of a trade in such merchandise would balance the industry and prevent a repetition of the severe depression which overtook the trade during the Boxer troubles in China.

LANCASHIRE MILLS.

WAGES PAID ENGLISH WEAVERS—MANCHESTER METHODS EXPLAINED.

Mr. Whittam also furnishes a report in which the wages of English operatives are given, and the basis on which wages and prices are computed are described. He writes:

With a few unimportant exceptions the wages of English cotton weavers are based upon a uniform list of prices. This list covers practically every conceivable sort of cloth, and is based on a standard which I give in terms of English currency. Pence may be for comparative purposes treated as 2 cents each American. "Twist" is the English term for "warp."

THE STANDARD.

The standard upon which this list is based is an ordinarily made loom, 45 inches in the reed space, measured from the filling fork grate on one side to the back board on the other, weaving cloth as follows:

Width: 39, 40, or 41 inches.

Reed (Sley): 60-reed, 2 ends in one dent, or 60 ends per inch.

Picks: 15 picks per quarter inch, as ascertained by arithmetical calculation, with 1½ per cent added for contraction.

Length of piece: 100 yards of 36 inches measured on the counter. Any length of lap other than 36 inches to be paid in proportion.

Warp: 28's or any finer numbers.

Weft: 31's to 100's, both inclusive.

Price: 30 pence per piece, or 2 pence per pick.

WIDTH OF LOOMS.

A 45-inch reed space loom being taken as the standard, 1½ per cent shall be added for each inch up to and including 51 inches; 2 per cent from 51 to 56 inches; 2½ per cent from 56 to 64 inches; and 3 per cent from 64 to 72 inches; 1½ per cent shall be deducted for each inch from 45 to 37 inches, inclusive, and 1 per cent from 37 to 24 inches, below which no further deduction shall be made. For any fraction of an inch up to the half no addition or deduction shall be made, but if over the half the same shall be paid as if it were a full inch. All additions or deductions under this clause to be added to or taken from the price of the standard loom, 45 inches.

All looms shall be allowed to within 4 inches of the reed space, but whenever the difference between the width of cloth and the reed space is less than 4 inches, it shall be paid as if the loom were 1 inch broader, and if less than 3 inches, as if it were 2½ inches broader.

When the cloth is from 7 to 15 inches, inclusive, narrower than the reed space of the loom in which it is being woven, a deduction in accordance with the following tables shall be made. No further deductions shall be made when cloth is more than 15 inches narrower than the reed space or when cloth is narrower than 18 inches. Fractions of an inch are not to be recognized under this clause.

For example, a 32½-inch cloth should be reckoned as 33, 40¼ as 41, and so on with all other widths.

REEDS.

A 60-reed being taken as the standard, three-fourths per cent shall be deducted for every two ends or counts of reed from 60 to 50, but no deduction shall be made below 50. For every two ends or counts of reed from 60 to 68, three-fourths per cent shall be added; from 68 to 100, 1 per cent; from 100 to 110, 1½ per cent, and from 110 to 132, 2 per cent. All additions or deductions under this clause to be added to or taken from the price of the standard, 60-reed.

Cloths woven with one end in a dent to be paid three-quarters of the reed; thus an 80-reed, one end in a dent, would be paid for as a 60-reed.

PICKS.

Low: An addition of 1 per cent shall be made for each pick or fraction of a pick below 11, thus:

Below 11 per one-fourth inch, down to and including 10, 1 per cent;
Below 10 per one-fourth inch, down to and including 9, 2 per cent;
Below 9 per one-fourth inch, down to and including 8, 3 per cent;
Below 8 per one-fourth inch, down to and including 7, 4 per cent,

and so on, adding 1 per cent for each pick or fraction thereof.

High: An addition of 1 per cent per pick shall be made whenever they exceed the following, if using

Weft below 26's when picks exceed 16 per one-fourth inch;
Weft, 26's to 39's, inclusive, when picks exceed 18 per one-fourth inch;
Weft, 40's and above, when picks exceed 20 per one-fourth inch.

In making additions for high picks any fraction of a pick less than the half shall not have any allowance; exactly the half shall have one-half per cent added; any fraction over the half shall have the full 1 per cent added.

TWIST OR WARP.

The standard being 28's or finer, the following additions shall be made when coarser twist or warp yarn is woven in the following reeds:

Below 28's to 20's in 64 to 67 reed, inclusive, 1 per cent;
68 to 71 reed, inclusive, 2 per cent;
72 to 75 reed, inclusive, 3 per cent;
Below 20's to 14's in 56 to 59 reed, inclusive, 1 per cent;
60 to 63 reed, inclusive, 2 per cent;
64 to 67 reed, inclusive, 3 per cent,

and so on at the same rate. When twist (warp) is woven in coarser reeds no addition shall be made. The above prices are for single and two-ply yarns. When three-ply yarns are woven one end in a dent, one-half of the above percentages to be added.

WEFT OR FILLING.

Ordinary pin mule cops: The standard being 31's to 100's, both inclusive, shall be reckoned equal. Above 100's 1 per cent shall be added for every 10 hanks or fraction thereof. In lower numbers than 31's the following additions shall be made:

For 30's, add 1 per cent.
For 29's, 28's, add 2 per cent.
For 27's, 26's, add 3 per cent.
For 25's, 24's, add 4½ per cent.
For 23's, 22's, add 6½ per cent.
For 21's, 20's, add 8 per cent.
For 19's, 18's, add 10½ per cent.
For 17's, 16's, add 13 per cent.
For 15's, 14's, add 16 per cent.
For 13's, add 18 per cent.
For 12's, add 21 per cent.
For 11's, add 25 per cent.
For 10's, add 30 per cent.
For 9's, add 38 per cent.
For 8's, add 48 per cent.
For 7's, add 61 per cent.
For 6's, add 76 per cent.
For 5's, add 94 per cent.

Large cops: When weft of the following counts is spun into large cops so that there are not more than 22 in 1 pound, the following additions shall be made in place of the allowance provided for pin cops in preceding table:

For 29's, 28's, add 1 per cent.
For 27's, 26's, add 2 per cent.
For 25's, 24's, 23's, add 3 per cent.
For 22's, 21's, 20's, add 4½ per cent.
For 19's, 18's, add 6 per cent.
For 17's, 16's, add 8 per cent.
For 15's, 14's, add 10 per cent.
For 13's, add 12 per cent.
For 12's, add 15 per cent.
For 11's, add 19 per cent.
For 10's, add 24 per cent.
For 9's, add 30 per cent.
For 8's, add 38 per cent.
For 7's, add 48 per cent.
For 6's, add 61 per cent.
For 5's, add 76 per cent.
For 4's, add 94 per cent.

FOUR-STAVE (HARNESS) TWILLS.

Low picks: In four-stave twills an addition of 1 per cent for each pick or fraction thereof below the picks mentioned in the following table shall be made when using weft as follows:

Below 26's, the addition shall begin at 13; 26's to 39's inclusive, at 14, and 40's and above at 15.

High picks: When using weft below 26's, the addition for high picks shall begin at 21; 26's to 39's inclusive, at 22, and 40's and above at 23.

In making additions for high picks, any fraction of a pick less than the half shall not have any allowance; exactly the half shall have one-half per cent added; any fraction over the half shall have the full 1 per cent added.

HERRING-BONE TWILLS AND COLORED EDGES.

For weaving cloths known as herring-bone twills, four staves (harnesses), 5 per cent extra on twill cloth prices shall be paid.

Colored edges or borders with one or more colored ends at the side shall be paid 5 per cent on plain cloth prices.

SPLITS.

The following additions shall be made for splits: One split, uncut, add 5 per cent; two splits, uncut, add 7½ per cent, and so on at the same rate. Empty dents only shall not be considered splits.

"Splits" are cloths woven with a center selvaged motion, so that when the piece is taken from the loom the wide fabric can be split into two or more practically perfect cloths.

BRITISH INDIA.

VALUE OF THE MARKET TO ENGLAND—PROBABLE COMPETITION BY JAPAN—OPEN FIELD FOR UNITED STATES.

Special Agent Charles M. Pepper, writing from Bombay, outlines the extent of the consumption of cotton piece goods in British India, and furnishes facts and suggestions that will interest our manufacturers. His report follows:

Various consular reports during the last few months have given full information about India as the leading world's market for cotton piece goods, and also concerning the progress of the native industry in spinning yarns for export to China and in weaving coarse gray goods for home consumption. These statistical facts therefore do not need to be repeated in detail in giving an outline of the conditions under which American manufacturers must determine whether they will seek entrance into a market which may be said to be unlimited in its possibilities.

For general purposes it is enough to know that the importations of cotton goods and yarns into all India are upward of $130,000,000 annually, and that Lancashire substantially monopolizes this wonderfully valuable trade, having no foreign competition except in colored, printed, and dyed piece goods, which competition up to the present time has made no serious inroads. It may also be restated that the share of the United States in the cotton commerce of India, aside from shipments of $1,800,000 to $2,000,000 of raw cotton, hardly averages $500,000 annually, the goods shipped being gray, unbleached, or sheetings and drills, chiefly from the Pepperell mills.

BOMBAY THE MARKET CENTER.

Bombay is a good point for measuring the possibilities of the trade, since it is not only a great piece-goods market, but is also the seat of

the native industry. Ninety per cent of the cotton mills of the country are located in western India, and more than half of these are in the city of Bombay and its suburbs. The native mills are now enjoying a period of extraordinary prosperity, and many which until recently confined themselves to spinning are introducing the latest improved machinery for weaving. Lancashire professes to feel no uneasiness over the possibility that the native mills will be able to turn out some of its own specialties of a quality sufficient partially to meet the wants of the consumers in India.

Should the country ultimately produce better cotton on a large scale the native mills almost certainly would themselves utilize it, and then the quality of their products might be improved so as to compete with Manchester in their own market, though they would be hampered, as they now are, by the countervailing internal-revenue duty of 3½ per cent ad valorem imposed in the interest of the British mills as an offset to the customs duties on imported cottons. These import duties are purely revenue and are in no sense a protection for the native industry. However, the possibility of the bulk of the India cotton crop being materially improved in quality is remote. Recently some importance has been given to the experiments of a Bombay mill with what is known as the Spence tree cotton. The mill owners reported that they had passed four bags of Spence cotton through the process of spinning and weaving and that the cloth made therefrom was, in their opinion, the finest cloth that had ever been made in the power looms from India-grown cotton. The cloth was made from 40's warp and 50's weft, and they were satisfied that the cotton would spin a good 50's warp and 70's weft, from which cloth could be made in fine dhotees, a great demand for which exists in India. The total loss of weight in blow room was only 3 per cent. The mill owners said they would gladly give 7 annas (14.2 cents) per pound for this cotton.

THE NATIVE INDUSTRY.

American middling cotton commands about 11 cents, and if cotton can be grown in India on a large scale so superior in quality as to bring 3 cents a pound more, the importations of raw cotton for mixing would of course cease. But this would be of little consequence compared with the ability of the Indian mills to produce a better class of goods for home consumption. That it can be done on a large scale is not yet demonstrated. Notwithstanding the favorable results from the experiment of the Bombay mill by technical and scientific experts, some of the officials are not satisfied that cloth from selected samples is to be taken as an average of the results that may be expected from Spence cotton, and they are withholding their judgment until they can take the average of production under the normal conditions governing cotton growing in India. Matters relating to cotton production, including the Spence experiments, are covered in the consular reports, and I give the most recent developments only briefly in order that manufacturers in the United States may understand that the samples forwarded from the Indian mills are likely to represent about the same quality for years to come. At least no phenomenal advance is to be expected from the native cotton used by the mills, though something better in the way of cloth may be obtained from the use of improved machinery, and possibly from increased efficiency of the native labor.

JAPANESE MANUFACTURERS VIGILANT.

Some regard, however, must be paid to the probability of Japan entering the India market, unlikely as that may appear at the first suggestion. Japan has been and is yet a heavy buyer of the coarse Indian staple for her own mills. It does not seem on the surface that the Japanese mills can import this raw product and send the finished article back to India, to sell in competition with the native cottons for home consumption, though the Japanese factory labor is much more efficient than that of India. Nor is such an outcome probable, even though the Korean cotton crop in time enables Japan to become independent of India for raw material. But what is looked forward to is the possibility of Japan competing with Lancashire in dhotees and other Manchester specialties. Last year, as I am informed, the Japanese Government sent experts to India, who took back large numbers of patterns of materials used by the people of the different sections of the country, which patterns, as is well known, vary considerably. These were carefully distributed among the different mills with a view to their imitation and reproduction. So far as can be learned the Japanese piece goods have not yet made their appearance in the Indian market, but they are likely to appear at any time. American manufacturers who have samples of the output of the Japanese mills may therefore find it advantageous to compare these with the Manchester goods sold in India.

INCREASING IMPORTATION.

YARNS AND CLOTH FROM THE UNITED KINGDOM.

Consul-General W. H. Michael sheds some additional light on the growing British India import trade in cotton manufactures in the following report from Calcutta:

The aggregate import of cotton yarns into British India for the fiscal year 1906 was $11,417,750, against $7,140,000 in 1904; and of woven and other cotton goods $130,060,000, against $96,230,000 two years previous. Yarns from the United Kingdom, which represent 93.5 per cent of the whole, increased from 28,021,000 pounds to 42,801,000 pounds. The imports of dyed and of undyed yarn continue to be of nearly equal value. Of the former, with a total of 23,000,000 pounds, about 89 per cent is of British origin, while Italy increased her contribution to 1,000,000 pounds and Austria-Hungary receded to about 600,000 pounds. The imports of 40s mule increased from 6,349,000 pounds, with a value of $1,451,665, to 10,673,000 pounds, with a value of $2,275,335. The quantity of yarn imported, and the production of Indian yarn is shown in the following statement:

	Foreign yarn.			Indian yarn.		
	1904.	1905.	1906.	1904.	1905.	1906.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Nos. 1 to 25	4,380,483	2,524,081	3,475,714	536,856,691	531,444,743	634,688,020
Nos. 26 to 40	16,588,042	19,995,875	33,696,627	40,960,069	45,658,619	45,091,084
Above 40	4,822,593	5,041,582	5,821,636	942,315	1,277,913	1,139,477
Total	25,791,118	27,561,538	42,993,977	578,759,075	578,381,275	680,918,581

IMPORTS OF FABRICS.

The imports of cotton fabrics increased in value from $117,345,360 to $128,758,410, which represents 37.9 per cent of the total imports of

private merchandise. Some descriptions of cotton goods are not stated in yards, but in piece goods, the imports of which reached the unprecedented level of 2,463,240,000 yards, with a value of $121,946,550. The increase was 174,850,000 yards, or in value $10,621,710. The following statement shows the relative importance of the three classes of cotton goods in the course of the last sixteen years:

Year.	Piece goods.		
	Unbleached.	Bleached.	Colored, dyed, or printed.
Average:	*Yards.*	*Yards.*	*Yards.*
1890 to 1894	1,223,470,000	368,630,000	374,170,000
1895 to 1899	1,209,770,000	418,590,000	351,490,000
1900 to 1904	1,204,530,000	369,690,000	430,570,000
1905	1,210,160,000	584,300,000	493,920,000
1906	1,348,840,000	572,750,000	541,550,000

The advance in gray goods was 11.4 per cent, colored following with 9.7 per cent, while bleached goods showed a decline of nearly 2 per cent. Considering the large contributions now made by the Indian mills to the supply of gray goods, their unprecedented activity in that line and the revival in the hand-loom industry, whose output is believed to be double that of the Indian mills, the increase in the imports of these textiles most largely used by the poorer classes must be regarded as a mark of prosperity among the masses. Bengal, where there are two cotton-weaving mills, took 998,408,333 yards, or 74 per cent of the total of imported gray goods in the fiscal year of 1906. The annexed table shows the classes of goods imported:

Classes.	1905.	1906.	Classes.	1905.	1906.
Shirtings:	*Yards.*	*Yards.*	Drills, jeans, sheetings:	*Yards.*	*Yards.*
Gray	517,640,000	605,790,000	Gray	18,770,000	28,890,000
White	129,020,000	109,620,000	White (drills and jeans)	7,790,000	9,400,000
Colored	63,190,000	80,410,000	Colored (drills)	5,090,000	7,840,000
Chadars, dhutis, saris, and scarves:			Unspecified descriptions:		
Gray	529,720,000	565,770,000	Gray	560,000	450,000
White	56,560,000	59,080,000	White	20,000,000	17,220,000
Colored	64,580,000	73,510,000	Colored	105,550,000	109,120,000
Jaconets:					
Gray	85,580,000	103,050,000			
White	30,700,000	224,900,000			
Colored	4,360,000	5,350,000			
Mulls:					
Gray	27,460,000	17,520,000			
White	134,890,000	103,710,000			
Colored	3,130,000	1,880,000			

The principal advances are in gray shirtings, dhutis, and jaconets. The following statement shows the quantity of mulls imported last year as compared with 1905:

Description.	1905.	1906.	Description.	1905.	1006.
Gray:	*Yards.*	*Yards.*	White—Continued.	*Yards.*	*Yards.*
Madapollams	17,940,000	18,850,000	Checks, spots, and stripes	7,560,000	5,420,000
T cloths and domestics	12,000,000	8,800,000	Long cloths	2,050,000	2,880,000
Printer's	490,000	220,000	Colored:		
White:			Prints and chintz	181,550,000	184,880,000
Nansooks	177,230,000	229,130,000	Cambrics, twills, and muslins	66,460,000	79,160,000
Cambrics, twills, muslins, and lawns	16,500,000	11,890,000			

Great Britain supplies 99.12 per cent of the gray goods, 98.09 per cent of the bleached goods, and 95.32 per cent of the colored goods. Besides these there are certain subsidiary classes of goods imported,

the value for last year being as follows: Handkerchiefs and shawls in the piece, $34,000; hosiery, $63,000; sewing thread, $25,000, and other manufactures, $82,000.

The United Kingdom supplies 88.5 per cent of the handkerchiefs and shawls and 85.7 per cent of the sewing thread. But of the total it supplies only 45 per cent, since a considerable part of the hosiery trade is practically absorbed by Japan, Italy, Germany, Austria, Belgium, and Spain. Of these, Japan further strengthened her position with a total value of $55,770 in 1906, while $45,000 worth of hosiery from Hongkong and the Straits Settlements was probably Japanese.

EXPORTS AND MANUFACTURES.

The exports showed extraordinary expansion in response to the restoration of peace in the Far East, the opening of markets rendered bare by a series of unfavorable years, and a return of prices, both of the raw material and of the finished articles, to favorable levels.

The production of the Indian weaving mills consists chiefly of unbleached shirtings, dhutis, T cloths, domestics, and chadars, and it increased for the fiscal year 1906 by 5,100,000 pounds, or 3 per cent. The yardage, which is stated only for bleached or unbleached goods, but not for colored or figured, increased by 15,200,000 yards, the total for this class being 362,900,000 yards, and the weight 133,700,000 pounds, out of a total of 163,900,000 pounds for all classes of woven goods.

Additions to spindles have amounted in all to 37,454, of which 7,359 were in Bombay, 22,823 were in Bengal, and 6,222 in Madras. In looms the additions were 4,976, of which 4,474 were in Bombay. And since it may be assumed that every spindle and loom has worked to its utmost output during the exceptional year under review it is possible to compute for the first time that the average capacity per spindle and per loom, respectively, under Indian conditions is 131.77 pounds of yarn, or 3,221.29 pounds of cloth per annum.

JAPAN.

MARKET FOR AMERICAN MANUFACTURERS—INCREASED DEMAND FOR VARIOUS GRADES.

Special Agent W. A. Graham Clark furnishes an interesting report of his investigations of the cotton-goods trade in Japan, which will be especially interesting to American manufacturers of cotton cloths. Mr. Clark furnishes details of a technical as well as of a general character. His report follows:

There is undoubtedly a good market for American-made goods in Japan. It is not a large market at present, but if the nearly $8,000,000 in cloth shipped here by England last year had come direct from American mills there would be more spindles in America to-day. In spite of the efforts of the Japanese people to cut down the imports and of the Japanese mills to control the home market, there was more cloth imported the first half of this than in the first half of last year, when there was a boom in the demand, caused by the war. To meet the national debt rigid economy is necessary on the part of the Government and the people, but with the rapid progress being made more and finer cloth will be worn by the middle classes, and here is the opportunity of the foreign mills. Japan is forging ahead along textile lines, but is not building mills fast enough to control the coarse goods

market in Manchuria and Korea, and also the demand for finer goods at home. Undoubtedly in time, probably very shortly, the coarse and medium grades made by Japanese mills will drive out all competition.

They will also manufacture the finer goods, and from my observation of their mill systems and workmen I see no reason why they should not in time successfully do so and build up a working force of highly-trained foremen, who in time would convert a larger portion of the working force into skilled operatives. In the meantime every new factory established in Japan means a larger market for foreign goods, for with the increase in wealth caused by manufactures the needs of the people will increase, and especially for foreign luxuries, fine cloth, etc., that they can not make themselves. Any reduction in the importation of foreign cloths will be temporary. That this is true is shown in the case of the United States, which in 1905–6 imported more manufactures of cotton than it exported—$63,000,000 of imports against $53,000,000 of exports. Of the imports $34,000,000 were of laces, etc., which can be made cheaper abroad. So in Japan the foreign trade will ultimately tend to finer lines. At present this tendency, owing to the necessity for economy on the part of the people, is not marked, though it is noticed in the high-class goods imported in a small way. The bulk of the demand is for cheap goods.

MARKET NEGLECTED BY AMERICANS.

The Japanese market for cotton piece goods has not been cultivated by our manufacturers nor by our commission merchants. On most lines no effort has been made. A representative of one of the largest American importing houses told me he had not seen an American cloth salesman for three years, but he could hardly attend to his business because of the swarm of English salesmen continually wanting to show him new samples and quote him latest prices. The indifference of the American manufacturer along this line, which is in marked contrast to his keen competition on most other lines in Japan, is undoubtedly due to the impression that this is a small market for cotton piece goods, and what field there is for cloth is being rapidly taken possession of by the native mills. To a certain extent this is a cheap market, but on certain lines there is a good demand for goods on which American mills can compete and on which, also, it will be a good many years at least before the native mills can get a monopoly. Note the market held by England in 1905, as shown in the following table of cotton goods imported in that year:

	United Kingdom.	United States.	Germany.	Other countries.	Total.
Bookbinders' cloth	$92,201	$12,635	$28,810	$33,108	$161,754
Drills	321,219	181,380	134	3,413	506,146
Duck	11,819	836,194	1,500	4,593	854,106
Flannels	10,831	290	143,518	86,127	240,766
Prints	648,689	.....	16,479	31,370	696,488
Satins and Italians	999,939	3	.....	20	999,962
Velvets	390,223	.....	37,224	4,597	432,044
Cotton and woolen plush	4,898	1,735	8,017	498	15,148
Sheeting	8,677	1,171	.....	343	10,191
Shirting, gray	3,124,278	.....	2,247	40	3,126,560
Shirting, white	826,248	4,437	2,252	16,976	849,913
Shirting, twilled	49,503	.....	.....	40	49,543
Turkey red cambrics	87,862	.....	.....	5,439	93,301
Umbrella cloths	395,333	.....	834	.....	396,167
Victoria lawns	214,353	129	.....	.....	214,482
All other cotton tissues	404,719	81,192	35,049	49,046	570,006
Total	7,590,737	1,119,166	271,064	235,610	9,216,577

It will be seen that of the cloth imported in 1905, 82.4 per cent was from England, and only 12.1 per cent from America.

TENDENCY OF THE MARKET.

The tendency of the market is exhibited in the following table, showing value of the main cotton cloths imported in the calendar years named and the first six months of 1906:

	1901.	1902.	1903.	1904.	1905.	First half of 1906.
Drills	$46,362	$48,345	$54,322	$610,851	$506,146	$40,233
Duck	55,663	38,278	37,149	502,985	854,106	39,185
Prints	340,234	1,301,016	987,688	266,047	696,488	403,593
Satins and Italians	842,248	844,268	570,429	328,273	999,962	443,071
Velvets	226,766	615,538	379,854	146,788	432,044	116,621
Gray shirtings	1,496,826	2,535,326	1,802,938	1,167,851	3,126,563	1,746,996
White shirtings	287,872	595,888	324,246	318,781	849,913	388,488
Umbrella cloths	543,033	413,661	280,444	293,673	396,167	503,456

It is seen that the abnormal import of duck during 1905, caused by the war demand for it, as sails, uniforms, tent cloth, etc., has dwindled to small proportions, and in fact during the month of July this year there was not a yard of duck of any kind imported. The market for drills is also rapidly shrinking and is now unimportant. On these two lines there is no prospect of much revival of business, as they are being made in sufficient quantities by the native mills. The Fuji Cotton Spinning Company at Tokyo and others are now making drills to be khaki dyed, and the uniforms of both officers and men of the army are now practically all made in Japan.

The biggest item in the cloth imports has always been gray shirting. What is classed as gray shirting includes both gray printers and the ordinary gray shirting. The gray shirtings imported, as well as several other classes, such as cambrics, etc., are mostly 18 square, 44 inches wide, 46 yards long, and weighs 12 pounds, being about 3.85 yards to the pound. The price ranges from 12s. to 16s. per piece, say 6¼ to 8½ cents a yard. The gray printers are put up in 120-yard lengths and are about 30½ inches wide. They were formerly about 31 inches, but are now usually made 30½, and the reduction in width of half an inch allows a reduction of about 3d. a piece, which is done to meet the Japanese demand for cheaper goods. These gray printers are bleached in Japan and printed in Osaka, Kyoto, or Tokyo. The most salable weight is about 15½ pounds (7.75 yards to the pound), which come full weight and are usually retailed as 15¾ pounds. The c. i. f. price is about 18s. 10d. per piece (3⅞ cents a yard). The weight ranges from 14 to 16 pounds, but the 14 pound is too high for this market and the 16 pound too good, so 15½ pounds is usual weight. On gray and scoured cambrics there is a fairly good business. The latter are made from Egyptian cotton, sell for about 12s. to 16s., and used instead of the Japanese silk as lining for kimonos, also for quilts, etc.

INCREASED DEMAND FOR SHIRTINGS AND PRINTS.

The close of the war has caused an increased demand for shirtings, and at present this is still increasing. The import of $3,126,563 in 1905 was the record on this cloth, but for the first half of 1906 there was imported $1,746,997, and for the one month of July alone $622,143.

On white shirtings the demand continues good, and the market is almost equal to the record made last year. This cloth is always 36 inches wide and 50 yards long. It was formerly 40 yards, but is now usually made 50 yards. The extra length is not only some saving at the loom in weaving longer cuts, but as the same number of pieces of the new length as of the old (i. e., forty) are packed in a case it saves something in cost of packing and cost of freight, and so permits of a trifle closer price. The 17 square (17–17 ends per quarter inch) sells for about 12s. 9d. (about 6.2 cents a yard). Other usual constructions old here are 18 square, 19.20 square and 20 square per quarter inch.

Just at present there is a big demand for print cloth of all kinds. The demand that arose with the war has increased, and there will be more print cloth imported this year than last. The native mills will break into this later, but at present there is a larger demand than they can supply. In the month of July alone there was imported $176,092 worth. Of the regular prints imported the demand is for a 30 inch 24 yard, about 16 or 17 square. The 17 square 32s. and 40s. yarn is now about 8s. 3d., which is about 8¼ cent a yard.

SATINS, ITALIANS, AND UMBRELLA CLOTH.

On cotton satins and Italians 30 to 32 inches, 40 to 45 yards long, 19–22, the demand is very good. The price ranges according to quality, from 7 to 16 cents. There is a very good demand also for Venetians, same construction about 20 cents per yard.

The greatest proportionate demand during the first half of this year has been for cotton umbrella cloths. In 1899 not a yard of this cloth was imported. Last year there was imported $396,167 worth, and for the first six months of 1906 the value reached $503,459. These cloths are 40, 42, 44, 46, and 48 inches wide and 40 to 45 yards long, 19–22 per quarter inch. They are made of Egyptian cotton exclusively, about numbers 60 and 70. Some are plain finished, some Schreiner, some mercerized, etc. In making the Schreiner finish a fine-lined cold roller is used that gives a peculiar finish. The plain finish, 44 inches 45 yards, sells for about 14 cents a yard; the Schreiner finish about three-fourths cent more. The printers, shirtings, satins, and umbrella cloths above described are the largest and most promising fields, though there are a few others.

Bookbinders' cloths are sold in widths 38½ to 40 inches and 35 to 40 yards long. Cotton flannels are 30 inches inside selvedge, 40 to 45 yards long, and sell for 10 to 12 cents per yard. Immense quantities of flannel are now being turned out by the Kyoto Flannel Company, the Miye Spinning Company, and other cotton mills, besides a very large number of small weaving establishments being on this cloth. I have forwarded head-end samples, also catalogues gotten out by small-power loom plants in Wakayama and Sittsu prefectures showing the lines made. At present the cotton-flannel business in Japan is overdone, and the demand is so slack that some of the mills will have to stop or change on to something else.

VELVETS, PLUSHES, SATINS, ETC.

Cotton velvets are about 22 inches wide. Some of the higher grades are made up to 27 inches. They run 38 to 40 yards long and about 12 to 16 cents per yard. They come in solid blacks, also in blue, red, violet, and maroon.

Cotton and silk plush is not made over 24 inches for furniture plush, 40-yard length, and are about 16 to 18 cents a yard. Dress plush is made an inch or two wider.

Victoria lawns have a fair sale and come in 12-yard lengths 40 inches wide and in construction 10–12 up to 22–22 per quarter inch. The 16–15 sells for about 2s. 3d. per 12 yards.

The best market demand is undoubtedly for shirting, printers, satins, Venetians, and umbrella cloth. Probably one-third of the cotton mills in the United States are on printers, and if the mills will cater to the demand they could secure the business, not only on printers but on gray shirting and satins and possibly others.

There is at present not much demand in Japan for fancy cottons, leno work, fine dress goods, etc., but there is some business done at a profit along these lines. There is not much demand for imported dyed goods, the prints being more in use on account of their cheapness.

I have forwarded the Department samples of English drills, gray printers and shirting, white shirting, and gray and scoured cambric, which are specimens of the most popular makes on these lines.

POPULAR PATTERNS AND STYLES.

Like all oriental nations the Japanese prefer loose, flowing clothing, but do not as a nation incline to the contrast of colors usually considered typical of tropical climate people. The Japanese dress very quietly, even more so than Americans. The babies are decked out in very gay colors, contrasts of purple, yellow, red, etc. The children wear mostly big patterns of "kasuri." This is the name given the large patterns of squares, blocks, lines, etc., and are mostly white patterns on a blue ground. Blue is a favorite color in Japan, probably more so than any other single color, varying from indigo to very dark blue. The older they get the more soberly they dress, and the men wear no loud colors. Black may be said to be the national color in cloth, and the clothing mostly used is very narrow-striped gray and black. The younger girls affect gay colors, and on holidays that is true of a large portion of the people, but ordinarily the "daimio-jima" is the national costume. The name "daimio-jima," which means "daimio stripes," is said to have been derived from the fact that anciently it was the distinctive dress of the daimios. Next to the stripes, small white dots on a blue ground seem in most common use.

WOOLENS, SILKS, AND COTTONS FOR KIMONOS.

The higher and more wealthy classes still use silk for clothing; in fact, its use seems to be extending instead of decreasing, probably due to the increase of wealth per capita. There is also a lot of imitation silk, silk and cotton mixtures, used especially for kimonos in daimio-jima.

Woolen goods are being used in increasing proportion for clothing, especially underclothing, and this is a promising field for our manufactures. There was recently imposed on this a consumption tax of 15 per cent, but this will hardly curtail its use, especially as a consumption tax (10 per cent) was also imposed on cotton goods.

The majority of the people dress in kimonos made of print cloth, and use mostly the narrow 13 to 15 inch widths (supposedly 1 shaku wide) of print cloth made in the native mills. These print cloths are

put up in neat packages, about 25 to 33 shaku long (30 to 40 feet), tacked twice at each end, with attractive labels, and with a bunch of silk floss to match pinned to the front. They are in pasteboard cases in most instances. Some are sold wound up in a roll of same length. For the better grades there is also used a large quantity of the 30-inch imported print cloth, most of which is printed in Japan.

HINTS FOR AMERICAN MANUFACTURERS.

The average Japanese buyer, whether wholesale or retail, is not very farsighted. He buys goods on their appearance and feel and not for their durability or wearing qualities. They go to English or German importing houses at Yokohama or Kobé, look at samples, and then order so many cases to be the same in appearance but to be cheaper. The latter condition can only be obtained by lowering the quality, and this process is going on all the time. This is where some American firms have lost. They either introduce the very best qualities, whose prices are too high to meet the competition of others, or, noticing the general tendency of the Japanese to buy close, introduce low-grade goods, whose appearance is such that they do not attract the Japanese buyer. The common saying here is that the American fine qualities are too high in price and the cheap goods too poor. The English and Germans have the production of attractive cheap goods down to a science.

Running cheap goods through hot calendar rolls, singing off all filling threads, putting up in neat bolts tacked nicely, attaching attractive labels, and baling carefully are items that do not cost anything like it does to throw the goods out of the factory as fast as made without a thought for their attractiveness to the buyer. The rough-finish, crumpled-looking goods may be made from better cotton and more durable and lasting, but as compared with a smooth-finished, attractive-looking piece of goods of really poorer-wearing quality they do not appeal to the buyer. More attention should be paid to the finish and method of putting up our goods, especially in detail.

In regard to trade-marks or designs, simple pictorial marks, such as dragon, butterfly, lotus, or something of the kind, is better than simple lettering, especially long words. This is for the reason that it is often translated into Japanese, and long words are apt to be abbreviated. Pictorial representation will also catch the eye and be easily remembered. There is no prejudice against religious emblems, but the sixteen-petaled Imperial Chrysanthemum must not be used.

BRAZIL.

HIGH-TARIFF MARKET, YET BRITISH PIECE GOODS FIND STEADY SALE—SOME SUGGESTIONS FOR AMERICAN MANUFACTURERS.

Consul-General George E. Anderson brings out the fact that the United States is sending very little cotton manufactures to Brazil. He has made a study of the trade there in cotton fabrics, and, along with pertinent facts and observations, submits a number of samples covering a variety of muslins, sheetings, prints, cotton ducks, etc., with price and sales conditions. That American cotton manufacturers may make a study of these with a view of entering the Brazilian markets the

Bureau of Manufacturers will loan the exhibit to textile concerns in the order of their application. Mr. Anderson makes the following report from Rio de Janeiro:

The one-time trade of the United States with Brazil in certain fabrics has practically disappeared, the entire cotton-cloth exports to this country being only $745,962 and $590,007, respectively, for the fiscal years 1905 and 1906 for a population of 17,000,000 people. Of the cotton fabrics imported Great Britain is furnishing the bulk. Some fabrics of American manufacture, like overall materials, still have a name in Brazilian markets that stands in spite of time, competition, and cheap substitutes, and only a bettering of general tariff conditions in Brazil is necessary to revive American trade in such lines. In some lines of American goods there is apparently little chance of doing anything. English competitors have built up a special trade, and so far have been able to keep it. American manufacturers continue to put more cotton and less filling in their goods, and do not sell so cheaply. In Brazil this policy works against American goods chiefly in that it especially increases the duty upon them. A difference in the weight of a thread, or in the number of threads, may mean different customs classification at a much higher rate of duty, and in Brazil at the present time the matter of the customs duty is the real problem in the cotton trade.

THE TARIFF DIFFICULTY.

A general lowering of the duties upon cotton manufactures in Brazil would work more to the advantage of the United States than to that of any other nation. The conditions upon which foreign goods are admitted in Brazil are so onerous and vary so greatly that it is difficult to induce the American cotton manufacturer to suit his products to such requirements, when much of the time there is no assurance when an order for goods is given that the goods will be entered in Brazil under the conditions they are manufactured to meet.

The cotton-goods importations of Brazil have been running from $15,000,000 to $16,000,000 per annum for several years past. This amounts to something like imports on an average of $1 American gold per head of the population. The consumption is much larger, but it would be immensely larger if goods of the medium to common grades could be had at reasonable prices. Prices for cotton goods are higher than for any other staple commodity, due to the high tariff and to the high cost of local manufacture from crude methods of producing and handling cotton and manipulating it in the mills. The industry is drained at every point, and as the cost of producing cotton cloth is increased the rates of duty for the protection of the industry are raised until the prices of many fabrics are raised beyond the consumption point. The amount of middle grade goods sold is small. The better grades and fine fabrics are imported because the wealthy classes will have them at any cost and they can not be made at home. The cheaper grades of goods are made in Brazil. In 1903 and 1904 hosiery imports increased about 4 per cent, lace goods about 15 per cent, and better grades of "piece goods unenumerated" about 50 per cent, while at the same time there was a decrease in the imports of bleached piece goods of 12 per cent, in printed goods of 18 per cent, and in dyed goods of about 3 per cent.

INCREASING COTTON PRODUCTION.

Cotton is grown successfully throughout the coast country mostly as a perennial, with little attention, on small patches around native huts. The dealers buy the small quantities and sell it to middlemen, who in turn sell it to consumers. Where there are so many profits the producer gets but little for his cotton, while the manufacturers pay high prices. Most of the cotton is grown in Pernambuco and Bahia; most of the mills are in Rio de Janeiro and Sao Paulo. Getting the staple to market by human or ox transportation in a country devoid of modern roads, followed by high railroad charges, lighterage to vessels, coast transportation, more lighterage to land it, costly handling in custom-house, import charges of one sort or another, customs brokerage, the expense of dispatching and incidentals, and then the cotton is merely ready to be distributed to mills which may be miles from any railroad or water transportation. About the largest mill in Rio de Janeiro is 6 miles from where cotton can be landed for it by any other means than vehicles. The vehicles used are small, the cotton is poorly baled and bulky, and the cost of transporting the raw material to these mills is enormous. This one charge added to the cost of production of any mill in the United States would doubtless wipe out all its profits. The mills vary greatly in equipment, the majority of them having English machinery, largely because most of them originally were established with English capital. Power is costly, coal being imported for all purposes. Labor is generally inefficient and comparatively costly. In short, there is not a single element of the cost of producing cotton cloth which favors the industry in Brazil as compared with other producing countries.

That the cost of the cotton to most of the cotton-manufacturing interests of Brazil is not due to the actual cost of producing the fiber is amply demonstrated by the fact that Brazil exported in 1905 a total of 52,979,857 pounds of cotton, valued, according to the customs returns, at $5,788,570. The probabilities are that this cotton was delivered in foreign countries at a lower cost than most of the crop was delivered in Brazilian cities. It may be worth while to note, also, that the exports of last year represent an increase of almost exactly 40 per cent over those of the year before. Brazil, under proper conditions, would have a wonderful future as a cotton-producing nation. The fiber grown is comparatively short and coarse, but it is mostly from plants which are not cultivated.

That the Brazilian cotton-milling business is now profitable goes without saying so long as import duties range from about 190 to 360 per cent effective charges upon the import valuation of goods. That the present course of things is too profitable to the cotton-mill owners at the expense of the consuming public is one of the complaints of the importers. The Commercial Association of Rio de Janeiro, in its statement to the Brazilian Congress, lays particular stress upon this point, and reviews the financial standing of the cotton mills in the capital district (corresponding to the District of Columbia in the United States), calling particular attention to the fact that the cotton mills of the country are conducting their business in a more or less secret manner, and hiding their profits, lest the true nature of the effect of the tariff upon the cotton industry becomes apparent.

PROFITABLE MILL STOCK.

It is reported that a cotton factory at Maceio, located where it can secure raw materials at its doors, paid a dividend of 45 per cent upon its stock last year, but most of the factories do not conduct their finances in so open a manner. A recent statement covering the establishments in Rio de Janeiro affords the following figures in milreis, a paper milreis now being worth 30 cents American currency:

Name of company.	Capital.	Reserve fund.	Market quotation of stock.
	Milreis.	*Milreis.*	*Milreis.*
Aliança	9,000,000	3,332,967.941	260
America Fabril	3,600,000	3,859,692.419	250
Brazil Industrial	6,000,000	1,232,202.186	210
Carioca	3,600,000	5,000,000.000	275
Cometa	2,400,000	.....	200
Confiança Industrial	9,000,000	.....	.....
Corcovado	4,500,000	1,096,944.730	200
Manufactura Fluminea	3,000,000	509,000.000	200
Progresso Industrial	9,000,000	3,079,000.000	266

Of these companies it seems that the Manufactoria Fluminese, with a comparatively small reserve, has shares quoted at twice their original or par value of 100 milreis. The Confiança Industrial has converted its reserve fund into new capital, increasing the latter from 6,000,000 reis to 9,000,000 reis, but its shares are still worth double their par value. This is true of the Cometa, the Progresso Industrial, and some others The total capital of the companies named, about 60,000,000 reis, is now said to represent about half the original capital, the rest being earnings of the respective concerns. At present these companies have reserve funds averaging nearly 25 per cent of their present nominal capital. Practically none of the above companies (the Cometa excepted) allow the public to know what their dividends are, while all of them are given stock quotations of at least 200 per cent.

This present prosperity is altogether due to the tariff situation, and inasmuch as the latter is commencing to be somewhat doubtful and radical changes may occur at any time the possible position of such establishments under changed conditions is to be regarded at all times.

HIGH IMPORT DUTIES RESTRICT SALES.

Under normal conditions the Brazilian demand for cotton goods would be that of any other reasonably up-to-date country. The social status of the people ranges from that of semiwild Indian tribes to some of the most luxurious. Ordinarily there would be a large demand for light-weight fabrics suitable for use in a hot climate, and under normal conditions the common people would use enormous quantities of cheap printed and dyed goods of the grades that retail in the United States at 5 to 15 cents per yard. The wealthier classes would call for the higher grades of goods which are worn by the same classes in other tropical countries. The effect of the extremely high import duties, however, has been to shut out practically all imports of medium, grade goods, and Brazilian cotton imports at the present time consist mostly of high-grade goods—lace and insertion alone make up about 8 per cent of the total imports—or very cheap goods. The Brazilian mills are manufacturing a good grade of what are called the cheap

grades of goods and poor grades of what are called the good grades of goods. The bulk are of coarse quality, rather heavily "weighted," and sized, and correspond to goods retailed in the United States at something like 5 cents a yard. They sell here at substantially 9 to 15 cents gold per yard. Prices upon the better grades of goods are even higher in comparison. A certain grade of muslin which was bought in a New York store at about 15 cents per yard was duplicated here at the rate of over 50 cents gold. Cloth substantially the same but differing in technical detail can be had a little less. The difference in the two grades is not in actual quality but in the fact that the technical construction of one enables it to be brought in under one classification in the tariff act from which the other is shut by its particular technical description.

AMERICAN SHEETINGS MUST CONFORM TO MARKET.

The merchants of Brazil generally take the risk of dealing with their own tariff and with freight rates of all varieties, and prices f. o. b. mills are probably all that American manufacturers could afford to submit. With this in view I have endeavored to secure what data have been possible from jobbers in cotton goods, and while some of these dealers have been disposed to withhold information that had practical value for fear there could or would be a break in their trade as a result of American enterprise, other dealers have appreciated the fact that American mills may offer them advantages and have done their best to present the trade as it actually is. I have had a number of inquiries from the United States concerning opportunities for the sale of American sheetings. In this line of goods I find that there is little opportunity of doing anything unless the goods are manufactured for this market. Goods now most popular with the retailers seem to have less real merit than most American goods at the same mill price, but they come in under a lower tariff.

I send to the Bureau of Manufactures a series of samples of sheetings, marked "Exhibit A," which represent goods now being imported and which are popular with dealers. These goods come in widths marked by quarter meters, but the price is made in yards. The 6/4 width (six-fourths or one and one-half meters wide) is priced at the mill at $6\frac{7}{16}$ d. (pence=2 cents), the 7/4 at $7\frac{1}{8}$ d., the 8/4 at $7\frac{15}{16}$ d., the 9/4 at $9\frac{1}{16}$ d., and the 10/4 at $10\frac{5}{8}$ d. An inferior grade of the same sort of goods comes in inch widths priced at the mill as follows: 63-inch, per yard, $7\frac{13}{16}$ d.; 72-inch, at $8\frac{5}{8}$ d.; 80-inch, at $9\frac{3}{4}$ d., and the 90-inch at $11\frac{3}{8}$ d. To be compared with these I inclose certain samples, marked "Exhibit C," which were given me by a Rio de Janeiro jobber. They were received by him several weeks ago from a New York jobbing house in connection with a circular letter offering the goods subject to acceptance and several other conditions. No goods were bought under this offer—not because the goods were not offered at a reasonable price, quality and all considered, but because the goods were not of a sort common in this market and whose sale value therefore was doubtful; because English goods more suitable for the market were offered at similar prices, and because the terms offered were not certain, and in so far as they were certain they were not as favorable as the customary terms with English houses. This matter of terms I shall consider in a subsequent paragraph.

PHILADELPHIA MUSLINS HOLD ESTABLISHED TRADE.

I also send two samples of cloth of this general variety which the dealer furnishing them thought could be furnished from the United States at the present time to advantage. The first, marked "Exhibit D," is a sample of English muslin. It is invoiced at 7s. 6½d. per piece of 20 meters. This fabric weighs at the rate of 189 kilos, 800 grams for 100 pieces, or 104 grams to the square meter, 37 threads to the square centimeter. It is 36 inches wide. "Exhibit E" is an English sheeting 32 inches wide invoiced at 4s. and 9d. per piece of 20 meters, weight 1.744 kilos (3.8368 pounds) per piece. A Rio de Janeiro jobber believes that American mills at the present time can offer better goods of this sort for less money, i. e., goods which will come in under the same classification and at the same time have more cotton in them. What the United States really can do in the line of fine muslins and similar goods is demonstrated from the fact that a Rio de Janeiro merchant attended the Centennial Exposition in the United States in 1876 and there saw and admired a muslin to such an extent that he introduced it in his trade. This muslin is to-day imported in varying amounts by two Rio de Janeiro firms, its popularity never failing during the more than thirty years it has been coming here. The goods are the "Centennial" grade (Washington or President head) Anchor brand, made by a Philadelphia concern.

HIGH REPUTATION OF AMERICAN OVERALL CLOTH.

In the way of prints Rio merchants are practically all of the opinion that nothing can be done at the present time by American manufacturers. I think, however, that this would not be the case if American manufacturers would cater to this market as English factories do. Only the best grades of prints are imported. There is no reason why American prints should not come as well as any others, except the mere fact that they do not. American goods face no prejudice whatever apparently. Their merit in some cases is recognized as above all others. For instance, in the line of overall materials the American goods are ahead of all others and beyond competition, weight for weight and price for price. Brazilian-made overall materials lack the attractive dye, the peculiar smell which goes with American goods, and experienced buyers in retail stores hunt for that odor. American goods of this class would come into Brazil in large quantities if the tariff rates could be arranged more fairly, especially if American prices were brought down a little. American overall goods will bring 50 reis a meter, about 1¼ cents a yard, more than similar goods from any other source, and this upon the basis of sheer merit. Since this is true of overall goods, I see no reason why it should not be true of every other item in the long cotton schedule of Brazilian imports.

HIGH PRICES OF COTTON DUCK.

Probably no better demonstration of the position of American goods of some sorts and of the operation of the present tariff in Brazil can be had than that offered by a variety of goods which seems to be a light-weight duck or cotton cheviot which is used extensively in Brazil for the manufacture of summer clothing. These goods are figured like summer woolen fabrics and resemble flannels to some extent when viewed from a distance. The United States sent considerable quanti-

ties of these goods to Brazil a few years ago, and the trade would have continued to the present time but for the Brazilian tariff. When trade in this fabric was at its height the Brazilian mills commenced to imitate American goods and especially American patterns, and offered their goods at comparatively low prices. As the tariff was increased from time to time, however, the price was raised. For a long time it remained at 900 reis, or about 30 cents, a yard. Then it went to 1 milreis, about 33 cents, and there it stays for the simple reason that American cloth would be much preferred to it at 1 milreis 100 reis, or about 36 cents. As it is, American cloth could probably be sent here at enough of a reduction in the price to force the market somewhat.

BRAZILIAN IMITATIONS.

Comparing the goods is ample enough demonstration of the manner in which the Brazilian goods have been made in imitation of the American fabrics. Indeed there is no concealment of this fact. For instance a sample, "Exhibit F," is a Brazilian cotton suiting made in imitation of an exclusively American pattern of such goods. It comes in widths of about 28 inches, and the price at the mill in Sao Paulo is 720 reis, or about 24 cents, per meter. Another fabric, "Exhibit G," is made in imitation of an American pattern quite common here some time ago. It comes in widths of 28 inches, and costs 25.3 cents a meter at the mill near Rio de Janeiro. Another, "Exhibit H," is a fabric made by the American Fabric Company, of Rio de Janeiro, also copies an exclusively American pattern. A 10 per cent reduction in the price of the American goods would get them into this market again. The American goods are of better grade than the Brazilian imitations. The American weave is regular, with threads of even thickness and uniform in the weave. The Brazilian weave is, for instance, with a large and small thread alternating, giving the fabric the appearance of a body it does not have and appearing to be of a weight it does not possess. The American goods are more durably colored—in short, they are better goods, and I have no doubt but that they could be furnished for enough less money to bring them into the country again under proper conditions. "Exhibit K" is a book of samples of the cotton-duck suitings, which Brazilian mills are making in imitation of American goods which have been driven out of the market.

EXTENSIVE MARKET FOR BLACK GOODS.

One line of goods in which dealers here seem to think that American mills can secure business even at the present time is in black muslins of the cheaper grades, which are used in Brazil extensively for mourning. There is a demand for black goods of all sorts in this country, which seems to be out of the ordinary. Plain black goods as distinct from figured goods come in to better advantage under the tariff schedule. There is 46 per cent difference in the respective duties upon them in favor of the plain goods. Then, too, the plain goods are more popular. When in mourning the Brazilian people use no color at all. I send two samples of such goods, "Exhibit I" and "Exhibit J," the latter of which cost $2\frac{1}{8}$d. at an English mill. The samples thus submitted are scattered over the range of cotton manufacture rather generally, and can in no way be taken as representing a complete line in any one sort of goods.

What is needed is a direct American representative here of American

cotton interests who is an employee of American concerns and has no other interest in the business situation here than to sell as much American cotton as possible. If any one interest in cotton manufacture in the United States can not afford, or thinks it can not afford, to put such a representative in the field permanently, a combination or association ought to be organized for that purpose, dividing the expense and the business. Such a scheme ought to be practicable from the American end of the line, and I am sure it would be successful from the foreign end.

WELL-PROTECTED SALES BEARING INTEREST.

American manufacturers seem to be commencing to appreciate the fact that if they are to increase their foreign trade materially there will have to be some concessions in the way of terms upon which goods are sold. This is the case in Brazil and South America generally, but it does not necessarily follow that such terms are loose or that they do not represent as much profit in the long run as American manufacturers are accustomed to secure upon cash transactions. Practically all of the goods upon which prices have been quoted herein as from English mills were sold upon a six-months' basis, but the agreement is that interest is to be paid upon the amount of the invoice at the rate of 6 per cent from the date the goods are shipped.

By this method the buyer is enabled to secure the goods upon terms which enable him to avoid the necessity of investing too much money in his business and at the same time the mills secure interest returns upon the money represented by their products before the latter are paid for. On the other hand the buyer has the constant inducement to pay for the goods as soon as he conveniently can, since to do so is to stop interest. As a rule the jobbers here grant similar terms to retailers, and as soon as goods are sold the paper of the retailer is made to cover that of the jobber with the mill. The British manufacturers are accustomed to transact the financial end of their sales through the several British banks doing business in Brazil, drawing against the papers subject to acceptance and later to remittance through the bank holding the drafts. In this method the presence of British and other European banks here gives them an advantage over American manufacturers with no American bank, but I have no doubt but that any of the banks here would be glad to have similar American business if they could get it.

EXTENSIVE BUSINESS BASIS FOR AMERICAN BANK.

As to credits this advantage of having British banks in Brazil has enabled British manufacturers to extend them more freely and safely; the same may be said of German banks and German manufacturers and other banks and other national interests. It is remarkable that there has been no serious consideration of the establishment of an American banking house in Brazil or this portion of South America in spite of the fact that by reason of coffee and rubber imports alone the United States indirectly remits to Brazil something like $75,000,000 annually. However, the fact that one of the leading American commercial agencies has practically established a branch in Rio de Janeiro and will soon have it in working order upon a comprehensive and satisfactory basis offers some means of avoiding many of the difficulties heretofore experienced by American manufacturers in doing busi-

ness here, and it seems safe to say that American houses having opportunity to sell goods in Brazil will from this time forward at least be in a position to properly protect themselves; and being in such position the terms offered prospective customers should be more in keeping with those now offered by their competitors in Brazilian trade.

Brazil will continue to manufacture a large proportion of its cotton goods supply, but it will of necessity continue to import some lines of cotton goods for many years to come. The raw material produced in Brazil is not adaptable to many purposes. For instance, some knit goods are made of it and are sold here at prices which would secure the very best goods in the United States, but the Brazilian products have a roughness and hardness which renders them unacceptable to anyone who can afford the imported articles. Germany and Switzerland are now sending such goods, but the United States, with its splendidly adaptable staple, ought to be sending them. In spite of tariff and other unfavorable conditions there is cotton trade to be had in Brazil now, and there will be a largely increasing trade in foreign manufactures of high merit in the future.

CANADA.

HOW PREFERENTIAL RATES AID SALES OF BRITISH GOODS.

The value of textile fabrics imported by Canada during the fiscal years 1901 and 1906 is shown in an elaborate table published by the Canadian Manufacturer. Those which are of interest to the trade of the United States are herewith reproduced:

Imports.	General tariff.	Great Britain under 33⅓ per cent preferential.		United States under general tariff.		All countries.	
		1901.	1906.	1901.	1906.	1901.	1906.
DUTIABLE.	*Per cent.*						
Church vestments	20	$234	$1,496	$407	$2,524	$11,691	$23,501
Cotton:							
Cordage	25	1,450	12,107	14,156	8,351	15,658	21,279
Twines	25	27,924	155,305	48,612	82,998	78,383	240,952
Batts and batting	25	427	683	9,926	9,926	10,437	16,026
Knitting yarns	25	18,797	16,289	8,270	28,461	27,270	45,615
Sewing thread—							
Spools	25	131,289	157,071	112,020	178,402	261,125	357,016
Hanks	15	376,764	383,887	83	222	377,781	384,109
Crochet thread	25	3,883	11,455	11,334	9,439	15,585	20,959
Seamless bags	20	704	5,376	8,200	7,164	9,275	18,362
Sheets and quilts	30	1,433	176,420	1,614	17,831	3,203	202,904
Shirts	35	20,021	55,959	21,578	107,537	45,794	173,202
Clothing	35	88,030	232,894	190,107	370,052	314,926	673,319
Blouses and waists	35	834	4,810	14,218	79,057	15,514	87,726
Bags, n. o. p.	35	510	7,030	29,790	56,385	30,591	63,523
Lampwick	25	1,115	5,143	7,021	5,398	9,053	10,876
Socks and stockings	35	39,098	104,633	3,479	25,540	91,391	314,495
Tape—							
Not dyed	25	24,635	46,805	2,494	10,222	29,549	62,321
Dyed	35	16,730	18,186	3,179	5,432	25,489	32,521
Towels	30	24,746	94,721	1,343	957	27,355	97,567
Underwear	35	1,561	13,223	4,185	70,564	7,929	100,024
Scrims, lawns, etc	25	115,894	160,868	6,472	7,958	133,586	186,831
Velvets and plush, n. e. s.	30	212,909	315,218	37,824	75,894	296,570	470,219
Crapes, black	20	18,989	9,986	502	473	24,488	13,303
Other fabrics, n. o. p	35	20,557	53,606	43,041	112,799	73,517	199,435
Curtains and shams	35	274,506	401,347	55,443	75,248	436,950	634,191
Embroideries, n. o. p.	35	9,717	12,053	6,905	8,364	56,579	84,982
Braids, fringes, etc	35	57,225	71,834	108,753	122,112	389,753	454,754
Flowers, artificial	25	47,909	62,176	58,920	85,242	141,488	264,808
Lace, lace netting, etc	35	373,280	745,823	31,977	76,687	799,219	1,702,897
Flax or hemp bags	20	43,172	10,660	10,570	34,824	58,646	117,250
Flax, duck, etc., n. e. s.	25	487,199	642,578	15,840	28,644	516,424	689,942

Imports.	General tariff.	Great Britain under 33⅓ per cent preferential.		United States under general tariff.		All countries.	
		1901.	1906.	1901.	1906.	1901.	1906.
DUTIABLE—continued.	*Per cent.*						
Clothing	35	$88,030	$33,445	$190,107	$16,717	$314,926	$40,524
Hose (fire, lined)	35	766	935	53,095	50,173	54,409	51,262
Rubber packing, mats, etc	35	932	1,364	39,617	67,795	40,759	72,215
Rubber, all other, n. o. p.	25	26,482	56,317	179,693	321,006	235,160	414,493
Hats and caps:							
Silk or felt	30	584,398	684,642	475,718	564,624	1,076,004	1,290,588
Straw, n. e. s	30	253,968	330,946	252,187	518,875	547,971	933,365
Mats and rugs, jute, n. e. s	35	92,625	263,834	3,652	27,254	111,043	363,997
Oiled silk and cloth	30	25,804	19,241	52,845	156,477	79,942	177,442
Oilcloth and linoleum	30	309,441	707,899	24,446	26,730	340,888	737,646
Regalia and badges	35	502	1,962	5,499	8,762	6,214	10,422
Ribbons	35	27,012	11,225	34,156	79,342	617,197	1,150,382
Railway rugs and dusters, etc.	30	58,331	36,415	15,730	9,197	113,184	51,578
Silk fabrics	30	320,203	363,991	105,640	93,024	2,359,753	3,882,554
Silk blouses and clothing	35	120,389	176,349	75,616	48,600	257,846	303,082
Silk, sewing or embroidery	25	15,419	23,206	9,720	15,297	25,789	39,912
Silk goods, n. o. p., n. e. s	35	35,329	32,815	15,667	18,228	95,262	114,176
Silk velvets, n. e. s	30	113,822	142,910	10,718	11,197	238,287	283,257
Stockinettes for shoemakers	15	11,819	14,112	39,820	58,522	51,639	72,634
Tapelines	25	4,081	11,273	3,738	16,252	8,253	28,446
Twine for nets, hammocks, etc.	30	3,108	1,548	11,153	31,085	15,257	33,527
Webbing	20	51,472	61,740	82,773	134,710	139,802	143,586
Window shades, n. e. s	35	728	7,370	348	4,443	1,089	12,096
Wool:							
Blankets	35	29,128	98,669	5,311	4,928	35,222	111,490
Cassimeres	35	2,587	1,853,932	48	9,205	6,812	1,977,209
Felt cloth, n. e. s	35	6,627	10,973	41,138	18,281	50,301	32,588
Flannels	35	51,296	93,429	4,966	1,424	123,485	131,674
Knitted underwear, n. e. s.	35	54,498	258,100	11,080	49,535	94,012	404,027
Bed comforters	35	827	13,286	604	2,274	1,718	16,027
Shawls	30	69,546	77,544	1,688	1,370	93,644	109,118
Shirts	35	12,368	25,566	1,815	3,728	17,009	31,065
Socks and stockings	35	479,189	1,012,426	7,903	15,777	543,012	1,119,281
Underwear	35	79,870	155,989	12,944	43,957	108,821	222,175
All other fabrics, n. e. s	35	1,928,843	4,107,222	44,273	55,562	3,098,818	5,965,648
Ready-made clothing, n. e. s.	35	371,760	377,999	164,596	262,316	962,812	789,516
Felt, not filled	20	21,221	18,955	40,805	40,893	182,550	195,515
FREE.							
Binder twine			21,818	928,096	1,628,923	928,096	1,650,741
Bolting cloth		86	97	6,387	17,034	6,709	17,593
Bookbinders' cloth		13,688	26,424	17,010	16,006	31,887	44,443
Buckram for hats		2,240	2,621	1,675	6,612	4,174	11,783
Canvas for bicycle tires		1,720		17,259	17,125	18,979	17,125
Coir and coir yarn		None.	428	2,667	13,495	2,667	13,923
Cotton waste		16,461	72,722	250,913	528,832	267,431	613,100
Cotton, raw		28,916	1,185	4,731,812	7,596,729	4,773,993	7,626,625
Duck for belting and hose		37	168	102,279	118,169	102,316	118,337
Jute cloth		620,667	619,673	15,330	27,036	663,752	843,850
Jute yarn		89,906	258,807	43,210	32,085	133,428	290,892

A summary of results show that of dutiable imports the increase from the United States was $1,912,310 and from Great Britain $11,188,007, out of a total increase of $17,681,114. In free imports the total increase from the United States was $4,122,599 and from Great Britain $645,485, out of a total of $5,009,491.

AFRICA.

CLASSES OF COTTON GOODS PREFERRED BY NATIVES.

German merchants are doing an important trade in east Africa in the native clothing known as kangas, which are almost entirely made in the United Kingdom and the Netherlands.

For these goods there is an enormous sale all over east Africa, the women being very fanciful about the latest fashion in pattern or coloring, so that a man, if he wishes for peace in his household, must pre-

sent his wife or wives with a new pair of kanga at least once a month. The article is a square of cotton cloth, 6 feet 6 inches by 4 feet 6 inches, printed in colors, two of them forming the complete dress of a native woman.

In his report from Pemba, a British consular agent remarks concerning the local trade in these goods that the women prefer quiet colors; the favorite at the present moment is a cotton cloth of pale lilac, with a wide black border, and in the center some design in black. He has seen traction engines, a hand of playing cards, or simple black stars, and many other designs, and suggests that animals, excepting dogs or pigs, would prove attractive, especially lions or leopards. The sale price of a kanga is 1 rupee (32½ cents) each, or 2 rupees (65 cents) per pair.

CHEAP GOODS WANTED.

Lately there has been introduced a thin flannel kanga of bright colors, stripes alternately black and pink, 1½ inches wide, with a narrow line of yellow between them. These are smaller than the cotton kanga, being made in rolls 2 feet wide. Two lengths of 5 feet 9 inches sewed together make a kanga 4 feet wide and 5 feet 9 inches long. The price is 4 rupees ($1.30) each, or 8 rupees ($2.60) per pair. As these are too expensive for the very poor, cotton kanga made with similar stripes would probably have a large sale. Of course the flannel kanga are made with stripes of many different colors, one with alternate brown and dark-blue stripes, and a narrow line of black between is much liked. There is a large sale in Pemba of cheap cotton vests, made in Spain and Germany, the price from 8 to 16 cents, according to the size. There is a constant demand for kaniki, i. e., Indian cotton cloth dyed with indigo, which a few years ago held the market. It is much used by both men and women as a working dress in the fields and by women as mourning. A substitute made in the United Kingdom and the Netherlands has of late years commanded a good sale. This latter is dyed with a chemical dye which resembles indigo, gives a smooth and shining surface, and in appearance is better than the Indian article, though it does not wear so well.

EUROPEAN MANUFACTURERS.

CLOSE ORGANIZATION OF THE TEXTILE INDUSTRY.

Consul William H. Bradley, of Manchester, forwards the report of the International Federation of Master Cotton Spinners and Manufacturers' Associations showing number of spindles in the association, number of bales consumed during the year ending August 31, 1906, and the stocks on hand. Mr. Bradley writes:

It will be noted that an average of only two months' supply is shown in stock, of which Great Britain's portion is much less than the average, most mills buying only to cover orders. Six and a half million new spindles will be in operation in the Manchester district alone during the coming year. Of these, two and a half million spindles have already begun to turn during the past twelve months. Of the six and a half million spindles at least three millions and a half will use American cotton.

Another interesting point is the fact that comparing the work done in England and on the Continent by numbers of bales and spindles, a

bale of cotton in England gave a year's employment to 12½ spindles, while on the Continent the same amount only employed 5¾ spindles for the year. The explanation probably lies between longer hours of work and the quality of material turned out.

In August, 1905, the spindles of the Federation numbered 46,720,000; in February, 1906, 54,297,000; in August, 1906, 66,072,303. Very properly waste and doubling spindles have now been excluded.

The following figures for the nine principal cotton-using countries of Europe for the year ending August 31 are very instructive:

	Spinning spindles.	Bales consumed.	Stock of bales.
Great Britain	41,885,774	3,358,708	386,356
Germany	8,864,618	1,622,004	339,711
France	6,402,757	890,112	129,079
Austria	3,377,259	644,364	145,385
Italy	1,910,919	541,774	133,360
Switzerland	1,395,436	92,528	18,002
Belgium	1,042,612	178,939	35,645
Spain	1,000,000	204,815	11,892
Portugal	192,928	38,137	11,180
Total	66,072,303	7,571,381	1,210,610

It is estimated that in Europe there are 77,115,125 spindles, and it will thus be seen that all, except 11,042,822, are included in the Federation. The Manchester News adds that this is a surprising result, considering the short time the Federation has been in existence, and shows that the cotton trade of Europe is organized on a basis more complete than any other industrial organization.

KONGO CULTIVATION.

GOVERNMENT PROMOTES INDUSTRY—AMERICAN PLANTER ENGAGED.

Consul-General H. W. Diederich, of Antwerp, summarizes the results to date of the cultivation of cotton in the Kongo Free State, in which the government has for some time been actively engaged. He says:

This not only includes native cotton, which is found in different regions of the Free State, but also the introduction and cultivation of foreign cotton. Experiments have been made with the best-known varieties, such as those of New Orleans, Georgia, Sea Island, Peru, and upper and lower Egypt. The first trials were made to ascertain the peculiarities of each species, the best time to plant, the particular care required for the culture and harvesting of cotton, and also to determine the varieties best adapted to the soil and climate with regard to quality and larger yield. The results of such experiments are being reported to the Kongo cotton planters. The Free State government has brought out cotton pickers and presses of different patterns for the preparation and baling of the cotton for exportation. It has furthermore engaged the services of a practical American cotton planter, with a view to placing under his direction the management of its vast plantations.

FIRST RESULTS.

The first crop of cotton made in the year 1904 came from experiment plantations in the lower Kongo. Samples were submitted to

experts who found the quality excellent. Among the varieties produced, the Egyptian, grown in the district of Kalamu in the month of May, was quoted at the highest price, viz, 48 cents per kilogram (2¼ pounds); other varieties, such as that of New Orleans, cultivated under the same conditions, was quoted at 26 to 34 cents per kilogram. A sample of native cotton from Maiumbe, harvested without any particular care by the natives, was quoted at 26 cents per kilogram. This product resembles the Indian cotton which is used for coarse manufactures.

In the upper Kongo, plantations have been laid out, especially in the upper Ituri district, where the climate and soil seem to be particularly favorable to the cotton plant. Contrary to the conditions in other countries, the wooded districts there are not favorable for the cultivation of cotton. The moist atmosphere and the constant rains which prevail in that part of the Free State territory, are most unfavorable, not so much to the growth of the cotton plant as to its maturing, harvesting, and shipping to market.

The Botanical Garden of Eala, situated in the equatorial district, is chiefly devoted to the gathering, selection, and distribution of cotton seeds. This establishment already is in a position to supply all demands made for seeds. Nevertheless the government continues to import the seeds of the best-known varieties. Not long ago the attention of the governor of the Free State was drawn to the fact that the native chiefs would derive great advantages from the cultivation of the cotton plant, inasmuch as it has become acclimatized in all the regions, especially in the lower Kongo, and the natives there are now familiar with its culture.

QUANTITY GROWN IN CENTRAL AFRICA.

In British Central Africa, according to particulars given in the annual report of the commissioner of the protectorate, the quantity of cotton exported in the last financial year was 776,600 pounds, as compared with 285,200 pounds in the preceding year. Experimental parcels were first produced in 1901–2. The area cultivated contracted in the year from 21,900 to 10,000 acres, which represents the elimination of the unprofitable plantations. The marketable quality of the fiber is said to be high, some parcels bringing as much as 18 cents per pound, as against an average of from 14 to 17 cents obtained for Egyptian and American sorts.

TEXTILES.

SILK RAISING IN VENEZUELA.

GOVERNMENT GIVES CONCESSION AND MONEY TO AID INDUSTRY.

Minister William W. Russell sends from Caracas an abstract of an important concession granted by the Venezuelan Government for the production of the silkworm and the establishment of the silkworm industry which provides for the free admission of machinery and equipment.

For the establishment of the silkworm industry the Government places at the disposition of Alejandro Ducharme for a period of ten

years the two pieces of property recently acquired by it and lying to the north of Caracas, and will furnish him with 10,000 bolivars (par value of bolivar 19.3 cents) for its foundation, to be used in the preparation of the property, planting the mulberry trees, and in construction work. Ducharme will return this amount in monthly quotas of 500 bolivars after the contract has run two years.

Ducharme binds himself to make use of the germs that he now has in process of development, to carry on the worm breeding, to harvest the ferret silk, putting it in readiness to be offered to the market, to strengthen the seed in order that it may not degenerate, to begin the work of preparing the ground and seeding the mulberry trees immediately after the receipt of the first quota, to breed the silkworm immediately with part of the germs that he now possesses, 2,000,000 germs must be in full vitality within six months, to begin the production of silk within one year, to show preference in employing Venezuelan laborers, principally women, to set aside for the Government after the second year 10,000 germs in each period of twelve months, to pay to the Government after the second year a tax equal to 10 per cent of the net profits of the enterprise, to assist the school of silkworm culture, to preserve the woods comprised within the property so that the water may not diminish, etc.

Ducharme remains exempt from the tariff duties on the apparatus, machines, and fixtures necessary for his enterprise. Article 7 establishes that the especial advantages accruing to Ducharme have only for their object the initiation of the development of the industry and are not for barring competition.

GERMANY.

EXTRACTING THE COLOR FROM SILK.

Consul J. I. Brittain, of Kehl, advises that an article recently published in the Strassburger Post mentions a discovery said to have been made by a chemist and engineer of St. Etienne by which the color may be taken out of silk, and it may be recolored in any desired tint, without in any way injuring its texture. The article goes on to state that in case the inventor can do what he promises it will almost revolutionize the silk industry, and entirely do away with the danger of injuring silks through coloring by means of too strong chemicals, which eat the fabric. It further states in the article that such a discovery would furnish work for years upon silks faded or discolored. At the present time these silks are a great loss to merchants and manufacturers. By the new process all old silks could be recolored and made as attractive as any new silk.

BARK CLOTH RETROGRESSION.

AFRICANS GIVING UP ITS MANUFACTURE AND BUYING COTTONS.

Further information on the subject of bark cloth is furnished by Consul Frederic MacMaster, in the following letter from Zanzibar:

The Brachystegia tree grows throughout Uganda, portions of German and British East Africa, and Portuguese East Africa, usually from 35 to 50 feet in height, and when bark is removed, which can be done once a year, natives generally select trees of about 2 feet in diameter. Natives are not making much of the bark cloth nowadays, as they are

buying cotton cloth for use in place of it. It is usually made by pounding the bark with flat stones and pulling the fiber lengthwise at the same time. The cloth if pulled with the fiber will stand quite a strain, but if pulled diagonally tears very easily. It is usually made in sheets, averaging about 10 by 6 feet. Many sheets have holes, and all are patched or made of two or more smaller pieces.

The bark cloth is looked upon by the merchants in this part of the world as a curio only. A firm in Mombasa shipped about 2,500 sheets to New York about the end of 1905, but made no money, so far as I can find out, and they discontinued shipments to that port. The same firm a few months later on, in 1906, shipped about the same quantity to London with the same result, and shipments to that port have stopped. This firm has now on hand 400 sheets which it would be glad to dispose of at cost.

The quantity of bark cloth possible to market is very difficult to state, depending altogether on the demand and price offered. There are enough trees in German and British East Africa and Uganda to supply any demand, if the price is adequate. As the natives who made the cloth to wear are now stopping the manufacture, it would take from three to four months to get a supply started again.

The price of bark cloth is lowest at Mombasa, where it varies from 2 rupees (65 cents) a sheet to 3 rupees (97½ cents) for about 10 by 6 feet; no two sheets are the same size. I do not agree with the statement of Consul Eager that the staple is short. As a matter of fact it is quite long, and I feel sure it would be too expensive to manufacture into felt. Cocoanut fiber, which at present is worth nothing here, would be more suitable for such a purpose, as it is not affected by temperature changes. The bark cloth itself has no wearing qualities, and could be used only for purposes where there would be no wear and tear, as covering for frames, etc. This is due to the fact that any diagonal strain tears it.

The freight rate is $10.95 per ton measurement, approximately, from Mombasa to New York or Baltimore, but is liable to change without notice. The impression here is that some one has a quantity of the cloth to market, for which an interest is being created.

AUSTRALIA.

NEW INVENTION FOR TREATING FLAX.

A new Australian machine for treating flax is reported by the Canadian commercial agent at Melbourne.

It is said to produce a much larger yield of fiber, of greater strength, and of unstained or natural color, which for the purpose of manufacturing such lines as linen, damask, etc., requires no chemical bleaching in the finishing operations. The Government expert strongly favors this new process, after exhaustive trials, on account of its expedition in producing fiber of exceptionally fine quality. The flax in its rough condition is passed through a machine consisting of three pairs of rollers, then immersed for an hour in a bath of hot water, containing added ingredients (not chemicals). Then the material is drained and dried, put through the breaking machine, and finally through the scutcher. To make a superfine quality it is washed twice, which makes the fiber pure white.

MACHINERY.

TEXTILE MILL REQUIREMENTS.

JAPAN.

KIND OF LOOMS NEEDED—PREJUDICE AGAINST AMERICAN MAKES—COTTON MILLS AND MACHINE SHOPS BUSY.

Special Agent W. A. Graham Clark reports that there is an excellent opening in Japan for the sale of power looms and describes the kind of looms best adapted to the mills of that country. British manufacturers of cotton-mill machinery dominate in that field as in the supply of cotton goods, and some of the reasons for this domination are furnished by Mr. Clark. His report follows:

At present Japan is a better field for the sale of machinery needed to make finished products than for the manufactured products themselves. In no line of business is this truer than in cotton manufacturing. Japan is straining every nerve to change from a consuming to a producing nation, and a great amount of money will be put into textile machinery in the next few years. The tendency of all the mills is to add looms and make cloth for the export trade. The great market for cloth of the kind that can readily be made by Japan in Manchuria and Korea has stimulated the weave mills, while the yarn business has to stand severe competition in China with Indian yarn, and at present the yarn market is dull. Many Japanese yarn mills are considering the question of changing to weave mills, and several have recently done so.

MARKET FOR AMERICAN MACHINES.

There is at present a fine opportunity for our textile machine manufacturers to gain a foothold in Japan. The textile machinery market is dominated by the English to an even larger degree than the textile market. Reports from England are that textile machinery manufacturers are overwhelmed with orders and can not give quick delivery. Spinning machinery is being turned out at Oldham and elsewhere in vast quantities, and shops are running overtime. The loom makers in Blackburn and Burnley are turning out more looms per month than ever before and are much behind with orders. Makers of reels, slashers, engines, and boilers, etc., are running behind on delivery. Much of this unprecedented activity in textile machinery factories in England is produced by the foreign demand, of which a good portion, like that from Japan, rightfully belongs on account of proximity to the United States.

The first mill in Japan that was a success had English machinery, and the other mills followed. Machinery from Oldham, Blackburn, Burnley, etc., is found in all the Japanese mills, but very little American.

There is some prejudice against American textile machinery as being too high in price and too light in construction. Notwithstanding his dexterity in certain lines of manufacture the average Japanese is a very rough workman, and the managers therefore prefer heavy machinery from England instead of the really better-designed American, overlooking the fact that an eyebeam properly constructed is fully as strong as a solid bar, and that in such instances extra metal is useless.

ENGLISH MACHINERY PREDOMINATES.

That the English control the market for textile machinery is due entirely to the indifference of our manufacturers. The English, besides having their agencies, send experts out continually, and do everything possible to facilitate buying, our manufacturers paying little attention to the market and even not giving quotations when desired. A local American firm that handles machinery, a little while back, noting the amount of money going to England for textile machinery, wished to see if some of it could not be diverted to America. They accordingly wrote to one of the largest companies manufacturing looms in the United States of the big market, and asked for quotations to see if we could not profitably compete. The answer came back in due time that the firm appreciated his inquiry, but did not care to make any quotations unless they knew the name of the particular mill the machinery would be ordered for. Contrast this with what would have been the result if the circumstances had been reversed and application had been made to England.

The textile machinery imports are increasing rapidly, as shown by the following table:

	1903.	1904.	1905.	First six months of 1906.
Cotton-printing machinery	$19,629	$17,980	$11,187	$19,403
Cotton-spinning machinery	267,501	316,942	614,117	556,177
Cotton-weaving machinery	39,670	77,418	193,282	66,829
Total	326,800	412,340	818,586	642,409

Of the $818,586 worth for 1905 there was shipped from the United States only $14,613 of cotton-spinning and $22,512 of cotton-weaving machinery.

NEW MILLS PROJECTED.

There are several new factories being projected, and established mills are enlarging, so if the question of raising more revenue is solved by the next Diet without burdening manufacturing too much, there will probably be between 50,000 and 100,000 new spindles installed during 1907. The Kanegafuchi Spinning Company, whose head office is at Kobé, intend to send their superintendent to England to select machinery for a large new mill they have decided to erect at Harima and which they intend to make a model mill.

A new million-dollar mill to be known as the "Oriental" is to be shortly established near Amagasaki, Setsu Province, for weaving calico. The proposed equipment is 500 looms, 20,000 spindles for No. 42 yarn and 10,000 spindles for finer yarn. Mr. Kibuchi Kyozo, of Osaka, has charge of the enterprise.

The Fuhushima mill at Osaka has decided to add 20,000 spindles so as to increase its yarn production for shipment to China.

Several other mills are now being organized and others are ordering additional machinery. Most of these orders will be placed this fall for spring shipment, and it affords a good chance for the introduction of American spindles and looms, as previously explained.

There is a prejudice among Japanese mill managers against American textile machinery. They assert that it is higher in price, lighter in construction, and takes more repairs. The mills were equipped with English machinery and were at first operated by Englishmen, and the Japanese naturally cling to what they have been accustomed, but if our manufacturers seize the present opportunity to get a foothold in the market and to prove the labor-saving qualities of the American textile machinery this prejudice can be removed.

RESULT OF THE KANEGAFUCHI LOOM TEST.

For the last year the Kanegafuchi Spinning Company, which is the largest in Japan and operates 218,080 spindles, has been conducting at its head mill in Kobé an experiment to determine the best loom. They installed 100 looms, of which 10 were plain looms from Draper Company, Hopedale, Mass.; 30 plain looms from Platt Brothers (Limited), Oldham, England; 12 Platt looms with warp stop motions; 30 plain looms from the Toyoda Shokwai Company at Nagoya, Japan; and 18 Toyoda looms with warp stop motions.

The trial resulted in favor of the English looms without stop motions and looms have been ordered from England to replace the Japanese looms.

The 100 looms have been running on 44 by 44, 36 inches, 3¼-yard shirting, making cuts 40 yards long, weighing 13 pounds. The yarn was a mixture of Indian, Chinese, and American. In blending three cottons of differing length of staple, different color, different texture and feel, and different spinning qualities, great skill is shown by the Japanese, but it is impossible for the resulting yarn to be as strong as yarn made from pure American cotton; and if too much twist is put in it kinks too badly. For this reason warp stop motions cause too much stoppage of the loom for coarse plain cloth, and are very much opposed by the operatives.

The American looms were given a black eye at the start by coming out in a broken-up condition due to bad packing and to rough handling, while the English looms arrived ready for work. While admitting that the American loom with American operatives is all right, the main argument made by the Japanese against its use is that it is badly designed for this market and that, as compared with the heavier English make, the breakage is excessive. This is due to the rough handling that is given the looms by Japanese operatives and loom fixers. The Japanese loom is inferior in weaving qualities and could not stand the usage.

Owing to the many mills now changing or proposing to install looms, the Kanegafuchi will probably remain on yarn, though there is talk of its building a shirting factory to replace English shirting. It is the largest mill in Japan, however, so the results of the tests are important for their effect on other mills. The present price of American plain looms is about 185 yen c.i.f. and English 170 yen.

LOOMS AT THE GONIKAI EXHIBITION.

This is an exhibition being held at Tokyo by the business men, showing the manufactured products of Japan and the methods of manufacture. It opened September 1 and runs three months. It is fostered by the Government, and this and similar exhibitions and bazaars are one of the many methods whereby Japan is being steadily pushed forward into the line of manufacturing nations. The exhibition showed great diversification of manufactures. The leading lines shown were textiles, silk yarn and silk cloth, cotton yarn and cotton piece goods, blankets of all kinds, both cotton and woolen, and hand and machine made matting. There was also a great exhibit of rugs made with cotton warp and rice-straw filling. Also many cotton carpets. The great majority of the cotton piece goods were prints put up in bolts about 1 shaku wide and about 33 shaku long. A cloth measure shaku is 14.91 inches. The goods were for sale as well as for exhibition, and are similar to those sold in the stores. Each bolt was put up in an attractive manner, and a great majority had silk thread attached for use in making up the garments. A good many pieces are sold rolled instead of folded.

PRODUCT OF LOOMS EXHIBITED.

One Japanese cotton mill, the Tsushima Spinning Company in Owari province in central Japan, operates 100 looms on 1 shaku print cloth, but the majority of the immense quantity of narrow prints made and used so extensively for kimonos are made on hand looms. The price is from yen 1.80 to 2.80 per bolt, or 4½ to 7 cents per yard. In addition to the narrow cotton prints, which were the main exhibit of cotton piece goods, there were also interesting exhibits of the goods made in the mills in Japan, comprising mostly gray sheetings, drills, T cloth, cotton crape, and cotton flannel, also some duck and shirtings and twills.

LOOMS INVENTED AND MADE BY JAPANESE.

One of the most interesting sights at the exhibition was the three new Japanese-invented looms, and, as showing what Japan is doing in invention, they are important. They are inferior to the British and much inferior to the American looms, but are ingenious, and illustrate the growing determination of the Japanese to strike out along new lines and to manufacture their own textile machinery as well as their own textiles. What first strikes one is the amount of wood used. The frames of all three are of wood, and wood is used wherever practicable, such as loom beam heads, whip rolls, levers, shuttle boxes, etc. The largest loom is labeled "The one Tsuda system Habutai Power Loom," and is made by the Matsuwo Works, Azabuku, Tokyo. It is used for weaving the transparent silk habutai about 36 inches in width. Except for the wood used and modifications in details this loom is not important.

LOOM WITH NOTABLE FEATURES.

The next loom is for weaving silk or cotton cloth about 24 inches wide and is notable for its method of harness raising for its stop motion, and also for being self-contained; that is, no driving belts, pulleys, gears, or levers being outside the framework. The driven pulley is under the loom at the middle of the cam shaft and is belted

from below, and belt shifted by foot lever at front of the loom. There are no cams, treadles, or strapping used to operate the harness. The two harnesses used have wooden ends and slide in grooves in the frame work. To the center of each heddle frame end is fastened a curved iron rod, the other end of which is attached to a short set-screwed crank arm on the cam shaft. As the cam shaft revolves, this crank arm through this rod imparts a reciprocal up and down motion to the harness, and by means of the set-screwed crank arm their motion relative to each other and to the lay can be adjusted. The width of shed can be regulated by changing length of rod where it joins the crank arm. The picking motion is also peculiar. While the picker stick is thrown with cams, levers, and lug straps in the usual way, the picker stick proper is under the loom and half the usual length. It is of wood, but at the top there is hinged by means of a screw an iron rod that runs out horizontally and curves up into the shuttle box, and the end of this rod carries the picker firmly attached. With this arrangement, owing to the hinge construction, the picker moves in a straight line, and there is no need of any parallelization of the picker stick motion. This loom also had an ingenious warp stop motion attachment operating through the heddles.

ANOTHER NOVELTY.

The third loom is used for weaving the narrow print cloth that is usually made about 13½ inches wide. It shows more points of dissimilarity from the usual styles, especially American makes of looms, and so is of more interest than the others. No lug straps are used, but the power is applied to the picker stick by means of a lever striking a casting on foot of picker stick. The foot of the picker stick is bolted into a casting that is pivoted on a horizontal bolt from another casting on the end of the sword rock shaft. A wooden lever is pivoted at the back of the loom on the side, and its front end rests on the projecting casting attached to the foot of the picker stick. An iron piece with projection is bolted to the middle of this lever. The end of cam shaft projects beyond the loom and carries a free roller on the crank pin of a short crank arm set-screwed on the end of the cam shaft. As the cam shaft revolves, the roller is carried around and strikes the casting on the lever, which is forced down and strikes the projection on the pivoted casting carrying the picker stick, thus causing loom to picker. The picker stick is brought back into position by a spring arrangement. Of course no parallelization of the picker stick is possible. The picker is loose on the end of the picker stick and kept in position by the sides and tops of the wooden shuttle boxes. This picking motion is patterned after a common English make, but is modified. The shuttle boxes being made of wood there is no binder used to check the shuttle and prevent rebounding. The checking is accomplished by two loops of leather, one inside the other fastened with thumbscrew to projection under end of the lay.

SUCCESSFUL STYLES.

The last two looms are made by the Toyoda Shokai Company at Nagoya. The company makes in all four styles of looms, viz: (1) The wide loom for 30 to 36 inch cloth with iron frame. This loom has not been a success—50 tried at the Kanegafuchi mills are to be replaced with English looms; (2) the narrow loom with iron frame; (3) the

narrow loom with wood frame; and (4) the narrow loom with wood frame and automatic stop motion. The No. 3 is the most popular. It is stated that this factory has sold between two and three thousand of that loom, and are now making 300 a month. There are 230 of these narrow looms used in a branch of the Miye mill at Nagoya, but the majority of them go to small hand and power loom establishments scattered throughout the Empire. A large number of these small establishments are operated by various kinds of power, steam, water, oil, etc., the majority, however, probably being run by gas engines. The price of this narrow loom with wood frame is only yen 95=$47.50, so it is the cheapest loom of any efficiency that can be obtained for this purpose.

AGRICULTURAL IMPLEMENTS.

AUSTRALIA.

UNITED STATES LEADS IN MARKETS OF SOUTH AUSTRALIA—GERMANS CONTROL WIRE FENCING.

An interesting and informative report on farming implements in South Australia with suggestions to American manufacturers is furnished by Special Agent Harry R. Burrill. Writing from Adelaide he says:

Agricultural implements of American and Canadian make control the markets of South Australia, and all conditions now point to a continuance of their popularity and an increase in the demand. The binders, mowers, and rakes manufactured in the United States represent nearly 50 per cent of the total importations of this class. American plows are not popular because the single-furrow implement is not adapted to the soil and climatic conditions. A 4-furrow plow, which turns over the ground much better and far more satisfactory than its single-furrow competitor, is now manufactured in Australia, and on large farms is always preferred. The American plow is only used here for work in small orchards or by market gardeners. Fully 80 per cent of the plows in use in South Australia are known as the stump-jump plow, appropriately named because of its abilities to jump obstructions in the field.

These plows are of colonial invention and manufacture and occupy a niche of their own in the markets of this State. It would be difficult to introduce an implement to compete with them, even though it might perform the work required more thoroughly, more expeditiously, and at less expense.

DOMESTIC MACHINES POPULAR.

Stripper harvesters and reapers, manufactured in Australia, have a strong hold on the market, having attained wide popularity through their complete adaptability to prevailing conditions. The prices to the consumer for the Australian plows, stripper harvesters and reapers are no higher, and in some instances somewhat lower, than the figures quoted on similar implements of American manufacture. The cost of the article is, however, according to the dealers of Adelaide, a secondary consideration, as they are regarded as superior in every

respect to all other implements for the purposes required, and well worth the price charged.

Agriculture is making rapid progress in South Australia, and it is the policy of the State government to assist the farmers not only to acquire suitable land on favorable terms, but to enable them to develop a market for their surplus production. This tendency to promote agricultural pursuits will further increase the demand for agricultural implements, and in this expansion the American manufacturer should and doubtless will participate, notwithstanding the protection that will be accorded the Australian manufacturers of agricultural implements through the proposed higher tariff. This important move on the part of the commonwealth government will be more fully discussed when parliament either adopts the plan of preferential trade with England, or postpones its consideration until the next parliament shall convene.

UNITED STATES AND CANADA COMPETITORS.

Agricultural implements manufactured in Canada are practically the only competitors of the American goods on this market, so far as importations are concerned. England's representation is unimportant, and implements of German make are infrequently seen. As the preferential trade proposition does not include Canada the exports from the Dominion will be as heavily penalized as those from the United States, and thus, in the event of its adoption, no advantage will be gained by either of these exporting countries in the struggle for supremacy in the Australian markets.

A comparison of the estimated value of agricultural implements imported into South Australia from various countries in 1905 may be of interest to the exporters of the United States, as it indicates the size of the market and its relative importance to American and Canadian manufacturers. These figures, given in round numbers, are merely estimates for the completed customs returns for the year are not yet available. They are, however, sufficiently accurate to serve the purposes desired.

Under the heading of agricultural, horticultural, and viticultural implements and machinery, the imports from the United States and Canada amounted to about $175,000 each, while those from the United Kingdom were only $25,000, approximately. Of the reapers and binders, the United States exported about $85,000 and Canada $30,000. The United Kingdom sent out approximately $5,000 worth.

GOOD PACKING—SLOW DELIVERY.

The packing of agricultural implements exported from the United States is regarded by the South Australian importers as satisfactory, and complaints of goods arriving in damaged condition are infrequent. Some difficulty, however, is experienced in securing even a reasonably prompt delivery, which embarrasses the importer and annoys the customer. This fault is noticeable not only in the importation of agricultural implements but of other commodities as well, and in the interest of American trade expansion it should be eliminated. The importance of promptly filling orders according to specification can not too frequently be emphasized, for with competition so keen no point should be overlooked which could possibly inure to the benefit of our exporters.

AMERICAN SAWS AND EDGED TOOLS.

American saws, edged tools of all descriptions, axes, and files are popular and control the market of South Australia. Notwithstanding this great advantage, however, Great Britain unquestionably exports the greatest quantity of hardware to this State. The reasons are practically identical with those observed in Western Australia, and attention is directed to my report from Perth, in which the conditions governing this highly important and rapidly expanding trade are explained in detail. Investigations here indicate that a more careful study of the requirements of the market would result in a far more satisfactory representation of American commodities, and that in overlooking or minimizing the importance of the recommendations of South Australian importers the manufacturers of the United States are making a vital mistake.

Machinery is also an important item in the trade of this State and, while Great Britain controls the market, the United States exports large quantities, which, under judicious handling, it is fair to assume, could be increased. By maintaining the standard, quoting prices which will permit of competition with similar products of other exporting countries, prompt shipment, and granting concessions to the whims and prejudices of their Australian customers, American manufacturers of machinery can unquestionably expand their business in this State. As this course would demand no radical departure from the methods ordinarily pursued by the manufacturers of the United States, it would, in view of the prospective development of this market, be a wise move.

COMPLAINTS AGAINST AMERICAN EXPORTERS.

The importers of South Australia now complain of the independent attitude of the American exporters and their indifference to the requirements of the market, as explained to them by their accredited representatives here; but they unhesitatingly express the opinion that the establishment of more cordial cooperation between the home manufacturers and the South Australian importers would result advantageously to both. These suggestions from the business men of Adelaide who are thoroughly familiar with the situation should commend themselves to the thoughtful consideration of the American exporters, for it is impossible to doubt that it is far easier to maintain and develop a market than it is to reestablish it after it has been weakened or crippled through carelessness or questionable practices.

FENCING WIRE IN GERMAN CONTROL.

Fencing wire is in great demand in South Australia, and its importance as an article of import bids fair to increase with the development of the agricultural and stock raising industries. American-made, plain, galvanized, and black varnished wire held a commanding lead in this market up to eighteen months ago, but at that time German manufacturers began quoting prices with which the importers of the American wire could not compete. This has resulted in the control of the trade passing into German hands, where it will doubtless remain unless more favorable terms can be made for the home product. The American barbed wire is popular here and, while its cost may at times be slightly in advance of that quoted by German exporters, it has proved

so satisfactory that the slight difference in expense to the consumer makes no appreciable difference in the demand.

The conditions surrounding the market for plain, galvanized, black varnished, and barbed wire, and wire netting in South Australia are similar to those obtaining in Western Australia, and it is therefore unnecessary again to discuss the suggestions contained in the report from Perth on this product and published in Daily Reports for October 5, 1906. The difficulties under which the Adelaide importers of American wire are now working could, they assert, be removed, in part at least, if the manufacturers of the United States could find it expedient to carry out the recommendations submitted by their representatives here and in the western part of the commonwealth, to which reference was made in the Perth report.

GROWTH OF TRADE IN WIRE NETTING.

The rapidly growing trade in wire netting, not only in this State, but in every part of Australia, unquestionably warrants a careful investigation of its requirements and possibilities by an expert, with a view to promoting American representation in this line. The importers of South Australia are quite at a loss to understand why so few quotations on goods of this kind manufactured in the United States are received, and are confident that if the American manufacturers would make the effort a constantly expanding market for their goods could be established. This, of course, would depend largely on the cost of the material laid down in Adelaide, its quality, its ability to protect sheep from native dogs, and its worth as an inclosure for sheep and hog paddocks.

INVITING FIELD FOR AMERICANS.

The State of South Australia presents an excellent field for further American commercial invasion, and this, in the opinion of the business men of Adelaide, can be best accomplished by exercising greater care in exporting goods that will fully meet the requirements of the market and give satisfaction to the consumer, thus enabling importers of American-made goods successfully to compete with England, aided by preferential trade, Germany with her lower cost of production, and the commonwealth of Australia assisted by the patriotic sentiment that home industries should be patronized.

CHINA.

STEAM PLOWS AND THRASHERS WANTED IN MANCHURIA.

Consul-General Thomas Sammons, of Newchwang, reports that the close of the year 1906 and the beginning of 1907 will mark the introduction of steam plows and thrashers into Manchuria.

America and England are represented in this new movement, the former with a plow drawn by a steam traction engine and the latter by one operated by a cable. Many native landowners are now interested in this subject, and if the pioneer modern farm implements prove successful and profitable in farming large areas of wheat, bean, and millet producing belts of Manchuria an extensive trade will ultimately be developed.

Foreigners are to be sent to instruct the natives in operating machinery of this nature, their salary and expenses to be paid temporarily

by the manufacturer or his agents. If they remain any great length of time the purchaser of the machinery must settle with the expert operators.

ASIA MINOR.

AMERICAN AGRICULTURAL IMPLEMENTS AT HARPUT.

Consul Evan E. Young reports that an interesting test of the value of the American drill for sowing wheat as compared with the old broadcast method so common in Asiatic Turkey, took place this past summer near Harput.

A small plat of ground was measured and then divided into halves. One part was placed under the supervision of Mr. Ajemian, agent for American agricultural machinery, while the other half was allotted to a native farmer. The former prepared his ground by a thorough plowing with an American plow, and the latter contented himself with scratching around on the surface with the historical crooked stick pulled by bullocks. Mr. Ajemian drilled in 2 eulcheks (1 eulchek = 10.61 pounds wheat, average) of wheat, while the native scattered 6 eulcheks broadcast on his half.

The harvesting of the wheat told the following story: From the 2 eulcheks drilled in with the American machine 50 eulcheks were harvested, but the native farmer from his 6 eulcheks of seed secured in return only 48 eulcheks. This object lesson has done more than catalogues without number to convince these people of the practical use and value of modern farming machinery. The fact that the use of reliable agricultural implements means more dollars and cents in their pockets has awakened a lively interest in this class of goods.

SCOTLAND.

TENDENCY TO GO BACK TO THE OLD "SWING" PLOW.

Replying to a Tennessee inquiry, Consul Rufus Fleming writes from Edinburgh that during the last fifteen years Scotland has been a fairly good market for American chilled plows of a type adapted to local ideas, continuing:

Scotch farmers prefer a narrow furrow, about 7 inches deep for grain and 9 to 11 inches for potatoes. They do not want the furrow turned over, but set on edge, because, if on edge it will not harden so soon and will be more easily worked. Gang plows are little used. The demand is almost exclusively for the ordinary walking plow with one wheel to the beam, as a rule. Many years ago double-furrow plows were in some favor, but fell altogether out of use. Recently there have been not a few sales of these plows—of Canadian manufacture—to farmers in the lowlands. It is curious to note a tendency among farmers in certain sections to go back to the old Scotch "swing" plow. A prominent dealer in agricultural implements states that many plowmen take pride in their expertness, and, as "anybody can manage a beam which runs on a wheel," they have a fancy for the old and more difficult type of plow. This probably explains the occasional calls for these out-of-date implements. Motor cultivators have not yet been adopted to any considerable extent in this part of Scotland.

For plows the prices quoted by leading dealers to the farmers are about as follows: General-purpose plow, with moldboards either steel

or chilled metal, single wheel, lea and stubble mounting, two shares and two colters, $20; patent chilled plow, with one wheel and skim colter, $21.25; double mold or drill (for making ridges or drills), fitted with regulating screws for expanding moldboards to various widths, from $18 to $22; potato plow, with two wheels and a pair of raisers, $20. Discounts are allowed for cash payment, but the rates or average rate can not be ascertained. English manufacturers of chilled plows have lately been cutting prices by expanding discounts to the dealers. As this reduction has not yet been met by American manufacturers, the English plows are at the present time taking the lead in the Scottish market.

NORWAY.

LIMITED USE—ACTIVITY OF LOCAL FACTORIES.

In response to inquiries, Consul-General Henry Bordewich writes from Christiana that the prospects for selling American plows in Norway are not encouraging. Of those used in that country about 90 per cent are of domestic manufacture. The duty, which is 10 per cent ad valorem, and the cost of freight make it difficult to compete with native manufacturers whose factories are equipped with modern machinery, and one of which has made and sold 4,500 plows of one special model during the last four years. The consul-general says:

The soil and other conditions differ much in the different tracts of Norway, and the plows have to be built to suit the wants of the people. The cross-plows used are generally very small, 8 to 10 inch, and strongly put together. The weight determines, to a great extent, the price of plows in this country. Retail prices range from 20–60 kroner ($5.36–$16) for the different grades of plows.

Last year a gentleman representing a New England plow factory visited Norway and brought with him one or two plows as samples. He put in his time well, but could do no business in Christiania. He then visited some of the smaller towns in the agricultural districts farther north and there he had better success, selling about 125 plows to a local dealer, with whom he is likely to do business permanently.

BRAZIL.

GOOD MARKET FOR FARMING SUPPLIES—RICE PLANTING.

Consular Agent Walter I. Neafie, of Maceio, reports a growing market in that part of Brazil for agricultural implements and farming supplies generally.

An agricultural syndicate [address will be furnished by the Bureau of Manufactures] by a decree of the Federal Government is allowed to import all classes of goods that are destined for the use of the agriculturist practically free of duty. The State government also allows exemption from State duties and assists the syndicate to a considerable extent financially. The principal articles imported to date are plows and barbed and plain wire from America and hoes and edge tools from England. They are quite willing to import everything from the United States if the American manufacturers will send the articles required by the Brazilian farmers.

It is proposed to start a Government experimental station soon, where free lessons will be given to the farmers in the use of plows and agricultural implements, and where they intend to have a model dairy and poultry exhibit, etc. The Federal Government has lately voted $20,000 to help this work along, and the State government will give probably twice this amount.

Owing to the present low prices for sugar, which in many cases do not cover cost of production, a number of farmers have started planting rice in Sao Luiz and Camaragibe, in the northern part of the State of Alagoas, of which Maceio is the capital, where the land is well adapted to rice culture. As Brazil annually imports large quantities of rice, the farmers will always have a home market for their produce, and should obtain remunerative prices. Rice is also grown on a small scale in the vicinity of Penedo in the southern part of the State.

There is an American firm at Jaragua Maceio (lower city), with offices also in Pernambuco and New York, which handles flour and kerosene oil; also all classes of goods on commission. It is the only American firm in the State, and is agent for most of the steamers calling at the port of Maceio from New York and for the monthly Austrian steamers from Trieste, Fiume, and Genoa. [A list of dealers in the various articles of import both at Jaragua Maceio (lower city) and Maceio (upper city), given by Mr. Neafie, is on file at the Bureau of Manufactures. Those wishing to export thither can secure names of dealers in any lines of goods.]

MARKET FOR PUMPS.

WIDE FIELD IN SOUTH AFRICA—FORMS THAT ARE POPULAR.

The British South African Export Gazette publishes the following for the benefit of British manufacturers of pumps. The information should be equally valuable to American manufacturers.

Some manufacturers of pumps apparently never awake to the fact that the South African market for this class of machinery is far from being confined to the mining demand, yet the latter, important as it is, is probably responsible for a considerably smaller business than are agricultural and household requirements. Except in the more important centers, the usual source of water supply is a well or neighboring stream—a fact which, once realized, sufficiently demonstrates the immense scope of the market for small, cheap, and easily worked pumps. One point, however, must not be ignored. The interior districts of South Africa are raised considerably above sea level, and for that reason suction pumps can only be struck to a limited depth. Deep-well lift and force pumps for working by hand are popular in such districts, and the sale of this class of apparatus is by no means hindered if they are equipped with a flattened end to the guide rod, well above the head of the standard, to which a windmill rod is attachable, if so desired.

PRIMITIVE FORMS RETAIN POPULARITY.

Though much has lately been heard of the virtues of the windmill pump, a class of apparatus in the supply of which United States firms have hitherto been especially successful, it may be of service to point

out that the last has not yet been heard of the old-fashioned chain bucket pump, or, as the Dutch farmers call it, the "bakkies pomp." The frequent stoppage of the windmill variety, owing to a dead calm, such as often prevails in some districts, renders the more primitive form of pump invaluable, because it can be worked at all times by practically any motive power. Agricultural ironmongers in the colonies are consequently frequently called upon to supply the chain-bucket apparatus or a windlass and length of ⅝-inch wire rope with buckets to work on the up-and-down principle, and a steady business of considerable value is done in the necessary mechanism and parts, British makers practically monopolizing this trade.

BOILERS AND AGENCIES.

ORDERS SENT TO THE UNITED STATES AS A LAST RESORT.

A representative of a New York machinery-exporting house, which makes a specialty of a certain standard make of American boilers, has been investigating the situation in his line, on the east coast of South America as a result of which Consul-General G. E. Anderson writes from Rio de Janeiro:

The New York traveler reports that in general the prospect is encouraging and that when his firm gets far enough along with present contracts to be able to take new ones in this portion of the world he thinks they will get business. At the same time he is very positive in his opinion that business will not be secured by American concerns through English or German houses here, no matter what sort of a contract of agency they may have. He is of the opinion that what business goes to the United States through such firms goes there because it can go nowhere else, and that there is practically no aggressive effort made by any of these firms to secure business for American houses they represent. If business for American houses comes to them without any effort on their part, and they can not direct it into more profitable channels, the American houses get it. Otherwise they do not.

This gentleman believes that the need of American agents for American houses is imperative. His opinion is that of practically every other man who has given the situation here—and elsewhere abroad, for that matter—enough time and attention to really get at it. It can not be expected that firms connected with America's trade rivals by ties of business, family, birth, tradition, and self-interest generally will work for American trade if they can help themselves.

There should be a direct American representative in each trade center abroad for every great American business interest, and where an exporting interest in the United States is not strong enough to afford to support such men in the field it ought to combine with other interests and divide the expense and the business.

MOTORS AND VEHICLES.

STRAITS SETTLEMENTS.

AMERICAN AUTOMOBILES ATTAIN SOME SUCCESS—TRADE OBSTACLES.

Consul-General D. F. Wilber, writing from Singapore, states that there are a number of automobile agencies in the metropolis of the Straits Settlements, all of which are foreign houses pushing the sale of motor cars manufactured in their own countries, the only American machine having an agency there being the Oldsmobile. Mr. Wilber continues:

We have two other American firms who might be induced to take the agency of motor cars for pleasure, passenger, and freight purposes. I think it would be practically useless to form connections with foreign houses, as they will not push American goods when having agencies of those manufactured in their own country. An American mechanical engineer here furnishes me with the following information:

As to conditions in Singapore, the Straits Settlements, Federated Malay States, and the islands of Sumatra, Java, and Borneo, the motor-car trade is yet in its infancy. In Singapore there are at present about 60 passenger machines and some 15 to 20 freight-carrying lorries. The only representatives of American cars are one or two Oldsmobiles and one or two Reo cars. The balance are entirely English and French in manufacture. This is apparently a fault of American manufacturers, because their deliveries are so uncertain, while with European competitors they are most prompt; a cable being sent for rush delivery, is usually followed by shipment by the first boat out. Then, again, the freight rates are too high from the manufacturers' agents' standpoint, and it is practically an impossibility to enter into the market until something has been done to lower rates.

AN EXTENSIVE AUTOMOBILE FIELD.

In the city of Singapore the cars are all owned by doctors, professional men, and some few motor enthusiasts, and the interest in motor trade grows daily. The field being practically uncanvassed for many years, it has not as yet been thoroughly gone over, nor have the majority of the right people been approached for the sale of motor cars. There is no need to dwell upon relative qualities in manufacture, finish, or cost of our cars, as compared with foreign cars, and it still remains for some of our enterprising countrymen to get their heads together at home and obviate the handicap that they are now laboring under in selling cars in the East, and then if the chances are on a par with the foreign agents, there is no doubt in my mind but that in five years the majority of the cars will be of American manufacture.

The roads are excellent, being entirely macadamized, and are constantly cared for by the Government; in some portions of the city the gradients run from 2 to 30, and in no instance are the roads less than 60 feet wide. To obtain a license to drive a motor car or a motor cycle, one must apply and pass an examination before the chief of police, and if, in his estimation, the candidate is capable of handling a

car, the license is granted on payment of a fee of $1 Straits currency, equivalent to 56 cents United States gold. The drivers, outside of Americans and Europeans, are mostly Chinese and East Indians. I have observed in freight carrying cars, which are used extensively, owing to their ability to negotiate the hills with fairly large loads, that the cars are not up to our standard carrying motors. In several instances they are no more than a steam traction engine pulling a couple of vans behind. This class of business is going to be a big one.

CHINESE LIKE AUTOS—GOOD LOCAL REPAIR SHOPS.

The demand for motor cars, as I have stated before, is increasing, and aside from Singapore it is growing extensively in the Federated Malay States and in Sumatra and the other islands in this vicinity. The Chinese and natives take to motoring very kindly; their chief interest being centered in the decorations and color of the body of the car rather than in the ability or workmanship of the engine. Of course it is needless to comment upon the tastes of Europeans, there being a sort of national pride on the part of the English and French to drive nothing but their own manufactured cars.

The worst difficulty in this part of the globe is the constant heat, which, by the way, the writer can vouch is in no way more oppressive than the heat in New York and Chicago in the early summer. This causes constant tire troubles, and while the majority of cars are equipped with pneumatic tires they are now putting on clincher tires, taking the risk of injury to the engine and car in preference to constant purchasing of new tires.

At present there is one fairly good garage here; besides this there is a motor engineer expert from home who is passing upon defects and breakdowns that occur and handing them over to the garage people, which permits of the same care and attention to the cars that one gets in the States. It is possible to get extra parts, castings, and other special work made in the local machine shops, so that we really do not suffer much by being so far from the headquarters of the various factories.

STYLE OF CARS PREFERRED.

The favorite car for these parts is a four-seated 10 to 12 horsepowe double cylinder; and although we have no speed limit, there is no nearly so much scorching as one sees at home. Gasoline can be had in any quantity and fairly cheap, as there is any amount brought from the island of Sumatra. The motor spirit is not so heavy as the American article, there being a tendency for evaporation and leaving water in the bottom of the tank. This, however, is rapidly getting better, and we are not having as much trouble as they had three or four years ago.

The cars in use here, with the exception of one or two, have no magnets, but rely entirely upon accumulators and coils for the spark. An enterprising magnet manufacturer could do an excellent business here if he entered the field and his prices were right, as battery troubles are very common. Lubricating oils are all first class and very little trouble occurs through that source. The air-cooled motor here is not a success, the weather being entirely too warm; the radiators upon the water-cooled machines will sometimes remain hot for days at a time.

The conditions in the islands of Sumatra, Java, British North Borneo, and also the Federated Malay States are practically the same as in Singapore. Owing to the absence of railway accommodation, and in most parts there being no railway at all, the Government has spent a great deal of money on making excellent roads, and the rich natives are in prime condition for the purchase of these commodities, but in face of the stiff prices that we must ask for our American-made machines, English and French manufacturers are reaping the harvest, and will continue to do so for some years to come, unless the evils referred to as to prices, freight rates, and deliveries are overcome.

The whole proposition summed up resolves itself into one of two things—either American manufacturers must bring pressure to bear upon the steamship companies in order to lower their freight rates, and they themselves be a little more prompt in deliveries for the eastern trade, instead of sidetracking Eastern orders in favor of those closer to home, or else they must figure so that a part of their profit is cut down, so the machine is delivered here at such a figure that the American agent can enter the field on the same basis as the foreign agents. Until this is done the American-made cars will always be in the minority. Even the tire manufacturers can not compete with the foreign agents, and this portion of the motor business is the best paying out here.

The motor-boat business is being pushed mainly by an American manufacturer's agent here, and there are quite a few being sold, but the main opening and the big business is for horseless vehicles.

OPENING FOR FREIGHT MOTORS.

On this automobile question an American house has prepared for me the following statement: Among the rich Chinese who have taken to automobiles, one at Kuala Lumpur owns four French cars. There is hardly room for great extension of automobiles for pleasure purposes in Singapore, for the island is small and there are no opportunities for making long runs. The roads are good practically all over the island, but motoring becomes rather monotonous in a limit of 35 or 40 miles.

There is a field for automobiles for freight carrying. These have been operated very successfully in the Federated Malay States and could be used more generally in Singapore. One firm has four of these motors in use in Singapore for delivering goods in cases, and it is only a question of a very short time when other concerns will follow suit. At present practically all the deliveries of goods from the wharves, in some cases covering distances of from 3 to 3½ miles, are made by bullock carts, which are slow, of limited capacity, and sometimes hard to get.

One thing that has militated against the introduction of motors for commercial purposes has been the extraordinary high price of benzine, but the price has been reduced from 42 cents gold to 28 cents gold per gallon. Even this is too high, as up to within two years benzine was a waste product in the Dutch oil fields and was thrown away. The efforts made to popularize motor launches and stationary gasoline engines led to a reduction in price. When we can get the local price down to 14 or 17 cents gold a great impetus will be given to importation of motor trucks, as it will cheapen their operation.

FORCED TO ORDER ELSEWHERE.

There are two things which are going to hamper us very much in the introduction of motor trucks from the United States—the high ocean rates now being enforced by the shipping combine, and secondly, that we can not depend upon deliveries from American manufacturers in a reasonable time. The buyer of a firm, formerly one of the biggest importers of American manufacturers' goods, recently informed me that his indents to America now were not 10 per cent of what they were four years ago, simply because he had to wait eight to ten months, and sometimes a year before he could get his goods (he was speaking particularly of machinery). It simply drove his firm to look out for other machinery that would take the place of American, and in some cases to buy American machinery from second hands in Europe at higher prices, because in that case he could depend upon delivery within a reasonable time. Just so long as we have to depend upon our present uncertain steamship service from New York direct to the Straits Settlements, the present high rates, and the indifference of American manufacturers, we shall have difficulty, not only in introducing new lines but in holding our own on lines which we have already established.

[An extensive illustrated article on the problem of the proper equipment of motor cars in that region from the Straits Times Annual is furnished by Mr. Wilber, and will be loaned to American motor builders in the order of their application to the Bureau of Manufacturers.]

ENGLAND.

OPENINGS FOR MOTOR BOATS AND ELECTRIC DELIVERY WAGONS.

Consul-General Robert J. Wynne, writing from London, says that it is suggested by a competent authority there, from whom a report has been sought on the question of American exportation of automobiles, motors, and other accessories of this particular industry to England, that the biggest market and the most hopeful for results in American manufactures is in connection with petrol and paraffin engines for motor boats and electric delivery wagons. This British authority says:

Looking at the history of the cars that American manufacturers have sent to England it can not be doubted that such cars have not displayed themselves to the same advantage as foreign cars of other makes have done in England, notably the French, German, and Italian. At the present time the only American car which has made for itself anything like a reputation sells in this country for something over £500 ($2,500). A smaller car has earned for itself a fairly good reputation, but the design is against it to some extent, as it is not fashionable in shape and is most conspicuous among the generality of small cars on the road. It is in other directions that American manufacturers must look for their market. Two suggest themselves at once. First, the supplying of engines for motor boats, and, second, the supplying of electric vehicles for commercial purposes.

AN OPENING FOR ENGINES FOR MOTOR BOATS

With regard to the question of engines for motor boats, the Americans have experimented much more than we in England have with

the type of engine known as the 2-cycle engine, as opposed to the usual 4-cycle engine, which is to be found in the vast majority of petrol motor cars. There is much to be said for the 2-cycle engine in its simplicity, its abolition of a great many working parts, and, under lines of proper design, its accessibility. In England we have practically dropped the 2-cycle engine, as we have been so busy with supplying the immediate needs of the moment that we have had no time for experimenting with this interesting type. The 2-cycle engine is a type extremely useful for motor-boat work, however, and any firm of American manufacturers which has the time and money to push it for the first few months at a loss—as they would certainly have to do—could find a good reward later.

I have considered the question of the electric commercial vehicle, a type which I gather from the American motor car papers is very successful in America. In England it is practically unknown, and at the present time in London I believe I am correct in saying that there are only about half a dozen electric vehicles used for delivery wagons, because the usual argument against the use of electric wagons has been the high cost of running. For certain trades there is no doubt that the electric delivery wagon would be far more suitable, especially in those trades which supply food, and where the fumes of petrol are thought to taint the food. There is a big market for electric vehicles in London at present for delivery purposes, if the American manufacturers are prepared to prove that the electric vehicles cost no more to run than the petrol vehicles, or that if it costs a little more it has its compensating advantages.

GERMANY.

AMERICAN EFFORT AT BERLIN DID NOT GO FAR ENOUGH.

An American steel boat manufacturing company wrote to Consul-General A. W. Thackara, at Berlin, desiring the name of a good representative there.

After careful inquiries, a business man who was an engineer and a member of several yacht clubs was recommended to Mr. Thackara as well qualified for such an agency. Upon taking the matter up with him the consul-general found that the boat concern had been already corresponding with the party for a year, but the impediment to business results was that the American firm insisted on cash against bill of lading. They stated to Mr. Thackara that they were "very anxious to work up a large export business," which leads him to comment:

It is really unreasonable to expect to build up an export trade by sending out circular letters and leaflets printed in English. You must be prepared for some expense or risk, which can be regarded as advertising, in order to introduce goods and establish a market. It is unreasonable to ask an agent who will work up business to order a sample boat and pay cash for it before seeing it. The prospective agent offered to pay the freight charges from America, and all return charges if not satisfactory. There is every reason to believe that Berlin would prove a good market for motor boats. Besides the river, there are in the vicinity of the city several large sheets of water, on which boating is one of the most popular forms of outdoor amusement. The

duty on motors is at the rate of $17.85 per 220 pounds for 88 pounds or less, $14.28 per 220 pounds for 88 to 220 pounds, and $9.04 per 220 pounds for 220 to 440 pounds, while the duty on pleasure vessels is $2.38 per 220 pounds.

NOVA SCOTIA.

OPPORTUNITY AND DEMAND FOR PRACTICAL MARINE MOTORS.

Consul E. A. Creevey, of Yarmouth, reports that the Province of Nova Scotia with its immense coast line, innumerable islands, coves, and inlets, its fisheries and the great number of people almost entirely dependent upon the seas for a livelihood, make it a particularly good field for the sale of low-priced motors that will withstand the hard usage required of them.

The coast is bleak, particularly during the lobster season, from December 15 to June 1. The waves run high, and strong tides prevail on the Bay of Fundy side. Over 7,000 small boats are engaged in this pursuit, and on account of the short season, strong tides, high seas, and not being able to locate their buoys only at "slack water," it is important that a speedy method be adopted by which the traps can be easily emptied and the catch landed. Motor boats are a great advantage and fast superseding the sail and row boats. The tides on the Bay of Fundy side run swift, and when ebbing and flowing carry the marking buoys under the surface of the water. During slack water, lasting about one and one-half hours, the buoys are visible; therefore the need of a speedy and sure-going motor boat.

KIND OF BOAT NEEDED.

The demand is for an engine simple in operation, plain, without pretense of ornamentation, sure-going, capable of high speed, with a positive sparking arrangement, and requiring little attention. The quantity of oil, while important, is a secondary consideration to the need of an engine that will withstand the severe drenching and pounding of the high seas, with sparking arrangements that can not become short-circuited from continual spray. Engines fitted with the "jump-spark" system have not proven altogether satisfactory. It is not condemned because of inefficiency, but because of its liability to become short-circuited by water breaking over the boat and the fishermen not giving this particular part of the mechanism the attention it requires. The engine that can be depended upon to run when the temperature is down and the seas high is the engine that will sell. Fishermen's boats are seldom dry; when they run alongside the marking buoys the engine is reversed or thrown out of gear only long enough to get hold of the line. The traps are hauled in, emptied, rebaited, and thrown back into the sea while the boat is under way to the next buoy. This in heavy seas and bad weather is dangerous, and the failure of the engine to work at such a time would endanger the boat and the lives of the fishermen.

Manufacturers wishing to secure this trade should make an engine the parts of which could be readily duplicated, and be willing, upon good security, to give some credit. An agent should be located at this end of the peninsula who ought to be a practical man with a thorough

knowledge of his engine, and be prepared upon short notice to renew parts and make simple repairs. He should have telephone connection along the coast with subagents at Digby, Barrington Passage, Clarks Harbor, Shelburne, Lockeport, and Liverpool.

SOUTH AFRICA.

STYLE CARS THAT ARE NEEDED.

During the first nine months of this year the United Kingdom shipped $220,000 worth of motor cars to South Africa, a considerable advance over any previous year. For use on the Rand a car on general touring or runabout lines is suitable, but for use on roads which intersect the veld, and frequently on the veld itself, special features of construction such as extra strong springs and well-raised bodies, to admit the "negotiation" of spruits and water courses, are essential. For use in any part of South Africa aluminum bodies are very popular, as wood, unless exceptionally well seasoned, warps badly under the subtropical sun. The talk of providing motor roads in South Africa is said to find extensive favor, for it is estimated that they can be constructed at a cost of $2,500 per mile, as against $20,000 per mile of railway, and that motor coaches would carry passengers and mail more expeditiously and with greater economy than a railway.

INDIA.

AMERICAN CARRIAGES WOULD BE IN DEMAND IF SUITABLE.

With regard to the introduction of American-made carriages into India, Consul-General W. H. Michael writes from Calcutta that if the productions are such as are in demand in India there will be no trouble whatever in finding a market. He continues:

There are a great many carriages, such as broughams, landaus, victorias, two-wheeled carts, and "office jauns," used all through India. The landaus and broughams are constructed much on the same plan as in the United States, but the other classes named are built on lines that have local peculiarities. The rich Maharajahs and wealthy Indians have their notions about carriages, and generally have them built on drawings supplied by themselves. The cart is a heavy one, but very shapely and stately and pleasing to the eye, and at the same time built to stand a great deal of hard service. The "office jauns" are four-wheeled and have a close wood top with a door on each side. They resemble the finer class of milk wagons used in some of the cities in the United States, and have seats in front and behind facing each other, with slat doors and windows for ventilation. The doors slide back and forward instead of opening on hinges.

Outside of Calcutta, in the country, I see no reason why the wide track and well-built American carts and carriages should not be quite as acceptable as any others. I noticed a cart in the warerooms of Cook & Co., Dhurrumtollah street, Calcutta, that was built in Cincinnati. Upon inquiry I learned that they had given some suggestions to the Cincinnati people as to how the carts should be built, and that they were selling quite a good many of the carts thus made, especially to country planters and to people living in villages round Calcutta.

Messrs. Cook & Co. are carriage builders, and do a large business in buying and selling horses, harness, etc. There are several other firms here, all prepared to do extensive and fine work.

American manufacturers of carriages could do well in Calcutta and other large cities of India by establishing agencies and showing samples of their work. With an exclusive agency in Calcutta, or in one of the large cities in India, in charge of a competent man who would push the goods and furnish specifications and drawings as to the kind of vehicles required, in time an American firm would be able to build up a good business. American manufacturers must learn the necessity of exhibiting samples and meeting the tastes and requirements of the trade in India in order to succeed.

ELASTIC ROADBED.

SWISS INVENTION OF TARRED GRAVEL FOR HIGHWAYS.

Consul-General Richard Guenther quotes the correspondence in a Frankfort paper from Zurich, Switzerland, stating that trials were recently made there with an elastic road covering invented by Street Superintendent Aeberli.

A section of Hohlstreet was covered with the Aeberli material. Many persons witnessed the trial, among them representatives of the municipal and cantonal authorities, who showed great interest. Two steam rollers were employed to smooth the road covered with the new macadam. Trials with a 6-horse wagon loaded with 10 long tons gave a satisfactory result after the macadam had been sufficiently rolled. The macadam is prepared of gravel of a fineness of from 30 to 50 millimeters (millimeter=0.0394 inch) in diameter, and is freed of all earthy matter. This gravel is first heated in a specially constructed machine, and from a revolving drum is subjected to the action of liquid tar, so that each particle of gravel becomes covered with a coating of tar.

This tarred gravel is then put up in heaps, covered, and allowed to remain so from eight to ten weeks. It is asserted that during that period fermentation occurs which causes the tar to penetrate into the pores of the gravel and in this way lessens the formation of dust. In covering the road with this material the most painstaking cleanliness must be observed and dry weather must be awaited. No foreign matter must become mixed with the macadam. In rolling it no water must be used. The cost of preparing this macadam is small, 44 pounds of tar being sufficient for 1 cubic meter (28.38 bushels dry) of gravel; where limestone is used, 55 pounds. The machine is operated by four laborers and furnishes from 10 to 15 cubic meters per day.

METALS AND MINERALS.

MANUFACTURES.

ELECTRIC STEEL SMELTING.

SMELTING METHOD IN GERMANY—CARRYING OUT FRENCH INVENTION.

Many American inquiries having been made on the subject of electric smelting of iron and steel, the following technical report from Consul G. E. Eager, of Barmen, will furnish valuable information as to the German process:

During the entertainment given to the visiting society of American engineers by their German colleagues at Dusseldorf on the Rhine, in August, a visit was made to the electric-steel works of Richard Lindenberg, at Remscheid Haston, Rhenish Prussia, to witness the production of steel after the new patent electric process, the invention of Dr. Engineer Paul Heroult, France. During the past several years technical literature of many countries has teemed with extensive reports regarding smelting processes by electricity, but few, if any, of these have been put into successful operation. The Iron Age recently contained an article on electric smelting for pig iron, but said nothing of the feasibility or economy of producing steel by this process.

On arrival at the Lindenberg Works surprise was expressed by the visitors to find that under this new process the production of the highest grade steel had been in successful operation continuously night and day since February, 1906, and that after a sufficient trial of the new process the old crucible methods formerly employed had been entirely discontinued.

MAKING THE NEW STEEL.

This plant produces almost exclusively high-grade and alloy steel, for which there is a great demand by the immense skate, cutlery, and tool manufactories in this district, of which industries those at Remscheid and Solingen are the most important in Germany, and the demand for the new steel has been so great that an enlargement of the plant is being made to increase the output. Up to the present time high-quality steel has been produced by a smelting process in graphite crucibles with a capacity of only 65 to 110 pounds, and as the necessary raw material had to be imported from Sweden or Steiermark, the expense was very great, costing from 80 marks ($19.04) to 350 marks ($83.30) per ton, with an additional smelting expense of from 37.80 marks ($9) to 100 marks ($24) a ton.

At the Lindenberg electric works high-grade steel is produced from the most ordinary scrap-iron rubbish of the cheapest kind and qual-

ity, and its condition is quite immaterial, as by the process all damaging substances, such as sulphur and phosphor, are practically eliminated, being reduced to one one-hundredth of 1 per cent. The cost of this scrap iron varies from 45 marks ($10.71) to 60 marks ($14.28) for 1,000 kilos (2,200 pounds), and the loss of material in slag and refuse varies between 6 and 8 per cent.

This rubbish is first melted in a tilting furnace or oven, constructed similarly to those ordinarily used in our American smelting works. After being thoroughly reduced to a fluid state it is poured and conveyed in a retort by a traveling crane to the Heroult patent electric oven, which has a capacity of from 1½ to 2 tons. In this oven the necessary quantities of carbon, manganese, chrome, silicum, nickel, tungstate, arsenical iron, etc., are added, to produce any kind or quality of steel desired. The whole process of production takes from 2 to 2½ hours.

OPERATION OF ELECTRODES.

The developing bath is heated by an electric current of 100-volt tension, which is brought into connection with the oven by means of a carbon electrode and carried back to the current by a second coal electrode, both of these electrodes being suspended perpendicularly through the top of the oven, and adjustable so as to nearly, but not quite, come in contact with the melted mass. The current leaps from the electrode in a wide, mighty voltaic arc, and passes through the mass to the second electrode, thus producing the requisite degree of heat sufficient for the purifying and finishing process.

The casting molds for the electric steel are the same as are used in any other factory. The cost of production depends upon many points which will become clearer after further experience with the new process. Raw material, fuel, electric current, wages, etc., depend largely upon the locality, etc., and the improvements in the process that may be made make it difficult to quote reliable figures, but it is safe to say that an average quality of steel, as heretofore produced by the crucible process, can be made by the electric process for from 90.66 marks ($23) to 100 marks ($24) per ton.

FURTHER ECONOMY POSSIBLE.

We were assured by Mr. Lindenberg that a great saving could be made by having ovens of 10-tons capacity. The consumption of electric current in the present 2-ton furnace amounts to 360 kilowatt hours per ton of steel of the highest grade, and it is believed that by the employment of 10-ton furnaces the current could be reduced to 160 kilowatt hours per ton of steel of the same quality. If a lower standard of grade and purity were desired, the current might be reduced to 100 kilowatt hours to the ton of steel.

The consumption of the electrodes is less thus far than was calculated with the 2-ton oven in use—it costs about 75 cents an hour. In a 10-ton oven this would probably be reduced to 30 cents an hour per ton. No damage to the steel from the electrodes has ever taken place, as they are never allowed to come in contact with the steel. We were assured by Mr. Lindenberg that a 10-ton oven could be as easily operated as the 2-ton furnace, which, with the help of an electric traveling crane, is now performed by two men and a boy. Thus far

no repairs to the oven have been necessary. The electric steel produced at the Lindenberg works surpasses greatly that of any crucible steel ever made, both in quality and chemical purity. By this process the steel is freed and kept clear of all gas and bubbles, which has never been possible by the old methods.

NEW STEEL MORE EASILY WORKED.

This advantage of the electric steel over the steel manufactured by the old system is because of its superior purity, and permits the introduction of from 20 to 30 per cent more carbon than in the crucible steel. It can be forged easier, is not easily affected, like the crucible steel, by the damaging influence of overheating; it is stronger and more firm, and offers a much greater resistance to wear and tear. The new system also gives added independence on account of the very ordinary material used for producing the steel. Such advantages have never been reached by any other system, and it has only recently been given to the public. This is accounted for by the fact that the inventor has kept the success a secret, until he was enabled to demonstrate to the public a complete, successful working plant.

The electro process is based on scientific metallurgical principles, which are of course the secret of the inventor, while the old crucible method was a remelting system, and dependent upon the use of only the most expensive ores.

The above facts should be of the greatest interest to the American steel industry, and the new method should be adopted by our manufacturers as soon as possible.

WELSH CHARCOAL IRON.

STEEL COMPETITION HAS CAUSED DISCONTINUANCE OF SYSTEM.

In answer to inquiries Consul D. W. Williams writes from Cardiff that there is no blast furnace in England or Wales making iron with charcoal as a fuel.

The last forge in Wales producing iron to be coated with tin was stopped in 1892. The only makers of pure charcoal iron sheets in England or Wales are said to be a Stourport concern, and they are said to consume all their product in their own plant. It is not known that any "charcoal iron blooms" are produced on the island. There is no firm manufacturing tin or terne plates using charcoal iron as a base except as noted. The term "charcoal plates" is now used for the best plates using Siemen's steel as a base, and those are made by old firms that had established brands in the market. There is comparatively little done in those plates, because common and best cokes answer the prices offered to better advantage.

Experts say that they would not advise going in for charcoal iron exactly as it used to be done in Wales. The quality could be charcoal, of course, but they would do away with the hammerman's hollow fire, which meant so much waste and labor expense. The last hollow fires in Wales used very common coke instead of charcoal. They hold also that the introduction of steel as a base was the prime cause that enabled the Americans to enter into competition with the Welsh.

Some experts hold that no tin or terne plates with steel as a base, no matter how it is finished, can be made to last like the old charcoal

plates. It can be made to look well and to stand the severest test in stamping, but pinholing will occur in time, owing to its temper and ingredients. There must be a return to iron as a base to secure the best results.

BELGIAN METALLURGY.

LARGE INCREASE IN THE EXPORTS TO AMERICA.

Consular Agent W. D. Shaughnessy reports large increases in Belgian metal exports to America, writing from Charleroi:

The exports of iron materials, including angles, bars, and plates, to the United States from the Charleroi district of Belgium, for the year ended June 30, amounted to $7,811, against $2,522 declared during the same period of 1905, making an increase of 209 per cent. The exports of steel materials, including rails, plates, plows, and ties, for the year ended June 30, 1906, amounted to $139,614, against $87,455 declared during the same period of 1905, making an increase of 59 per cent. A number of large orders coming from the United States have been refused, as the prices offered were too low.

There are 43 blast furnaces in Belgium, turning out about 2,000,000 tons per year, 60 per cent of which is Thomas pig and 30 per cent forge pig. There are 25 steel works containing 25 steel furnaces and 46 converters, producing on an average of 1,000,000 tons per year. The transformation of ironworks into steel works has increased each year, and it may be also stated that more than 90 per cent of the output of Belgian steel pig has been absorbed in the manufacture of refined steel, such as sections, rails, girders, sheets, etc. This does not include the great number of factories engaged in the manufacture of small hardware, tools, and cutlery, situated all over the country.

The contracts for $8,000,000 worth of locomotives, tenders, and cars has been distributed by the Belgian State Railroad among the leading firms. Following this it is announced that contracts are to be let for 100 locomotives, at a cost of $2,000,000, for the Italian railroads.

IRON AND STEEL PRODUCTION IN FRANCE.

A report from Consul J. C. Covert, at Lyon, states that the French Government has just published the following statistics concerning the output of iron and steel in France for the first six months of 1906:

In pig iron the production was 1,573,504 tons, an increase of 73,000 tons over the same period of 1905. In rolled iron and steel the production was 384,000 tons, an increase of 18,000 tons over same period of 1905. In cast steel the production was 230,000 tons. The weights mentioned are the metrical tons of 2,204.62 pounds avoirdupois each.

ALZEN, A NEW METAL.

Alzen is the name given to a new metal, which is composed of two parts of aluminum and one part of zinc, writes Consul-General Guenther from Frankfort. It is said to equal cast-iron in strength but is much more elastic. Alzen is superior because it does not rust as easily as does iron and it takes a high polish. Besides being very strong this new metal is capable of filling out the most delicate lines and figures of forms in casting.

PIG IRON IN MEXICO.

SCARCITY OF PROPER FUEL—NUMBER OF NATIVE PLANTS.

In response to numerous inquiries, Consul-General Gottschalk, of the City of Mexico, has gathered the following data regarding pig iron in Mexico:

Native pig iron does not appear to have made its appearance upon the market until some three years ago. The only reason that I can find for this seems to be that the lack of proper fuel makes ironworking extremely expensive. I am told that it averages between 25 and 30 Mexican pesos ($12.55 and $14.94) per ton, and that therefore it proves cheaper to import pig iron from abroad. It would appear that of the pig iron used in Mexico at present about three-quarters is imported from England, and that a very small percentage comes from the United States. Some ten years ago, while Mexico was yet in the beginning of its railroad history, the railroads sold their "scrap" to whomsoever would buy for remelting. Steel could not be worked here in those days, and all the old railroad steel appears to have been sold at Tampico for sometimes less than the freight from Tampico to Mexico City.

There is a steel plant in Monterey called the "Fundición de Fierro y Acero de Monterrey," whose president is an Italian, and whose paid-up capital (said to be 10,000,000 Mexican pesos, or $4,980,000 United States currency) is principally Mexican. This company has been a factor in the national development of the industry, by being the means of obtaining the greater protective duties on rails and building material. They make rails, and, generally speaking, all sorts of steel work, but their chief output, I am told, is structural steel.

IRON AND STEEL WORKS.

There are ironworks, manufacturing wrought iron and mild steel, at Chihuahua (Compañía Industrial de Chihuahua); at Durango (Compañía de Fierro Nacional, with an American in charge); Ricardo Honey's works, near Pachuca, backed by combined Mexican and English capital; and the Mexican Central Railroad, at Aguascalientes, has a mill of goodly proportions, where it rerolls all its old wrought iron into bars, bolts, and structural material, such as truss rods, brake beams, etc.

There are a number of cast-iron works in the City of Mexico, prominent among which are two large concerns—the National Iron and Steel Works (American) and Thomas Phillips & Co. (British), besides a number of smaller Mexican works. There are a number of similar concerns of varying importance scattered throughout the Republic and using scrap or pig iron imported from Monterey. The International Rairoad, at Ciudad Porfirio Diaz, has furnaces where axles and car wheels are made for its own service.

In the course of an investigation upon iron, one can not fail to hear of the singular "Iron Mountain" of Durango, a hill which analyzes an enormous percentage of pure iron, unfortunately showing so high a percentage of sulphur that it can not as yet be profitably worked.

I find that brass is worked in Mexico from copper and zinc imported from the United States and tin from England. Copper mattes are shipped to the United States from Mexico, and Mexico imports cop-

per from the United States. This, I am told, is due to the absence of proper reduction plants here. Copper wire is imported largely from the United States in its commercial form as wire.

MINING.

ENGLISH COAL TRADE.

EFFECT OF REPEAL OF WAR-REVENUE EXPORT TAX.

Consul Walter C. Hamm writes from Hull that the abolition of the tax of 24 cents per ton on coal exported from Great Britain, from November 1, causes varying opinions as to its trade effect.

During the operation of this tax the exports of coal from England, and from Hull especially, have largely increased; but this has been due, probably, to exceptional circumstances. Chief among these were the great anthracite strike in America in 1902, the recent coal strikes in Germany and France, and the Russo-Japanese war. Each of these causes created an unusual demand for English coal. Most of these causes have now ceased to exist, but nevertheless the export of coal has continued to increase. The quantity exported from Hull in 1906 will probably be the largest of any year on record. One result of the tax was that colliery owners sent to market a large quantity of "smudge" or refuse coal, which formerly went to waste. As this coal sold for only 65 or 75 cents per ton it escaped the tax, and so could be exported and sold at a very low rate. This fact has taught the operators a lesson, and this kind of coal will doubtless continue to be used where formerly most of it went to waste.

Exports of coal to some countries will doubtless increase. Belgium, for instance, places large contracts in Great Britain when coal is cheap, and British coal dealers can probably recover that and some other markets which they lost on account of the higher price charged on account of the recent tax; but it is doubtful if the consumers will reap any of the benefit from the remission of the tax. Colliery owners may be compelled to pay higher wages from the fact that the miners' organizations are putting forward a claim that they should have an increase of pay. The coal trade of the three Humber ports—Hull, Grimsby, and Goole—is in a satisfactory condition. All of these ports show increased shipments this year, foreign having increased from 347,903 tons in September, 1905, to 470,711 in September this year, and coastwise trade from 116,662 to 185,890 tons. The removal of the tax will cause a material decrease in the revenue of the National Government, as can be judged from the fact that the export tax on a cargo of 2,400 tons was about $600.

FATALITIES AND PRODUCTION COMPARED WITH AMERICA.

Consul D. W. Williams, in a report from Cardiff, makes a comparison of the cost in lives in the United Kingdom and the United States. He writes:

Mining as a British industry dates back over two thousand years, but in spite of all means known to the highest civilization in the way of legislation, inspection, mine discipline, and invention, death's daily

toll of lives abates but slowly. According to the complete statistics for 1905, just published, the highest death rate prevails in the Cardiff district, which produces the smokeless coal. To mine the 22,815,107 tons of coal 86,881 miners were employed, of whom 287 lost their lives, or an average of 3.3 out of each 1,000 employed. The death rate for the entire Kingdom was 1.358 per 1,000 employees.

Owing to the watchfulness of both masters and men the discipline in the mines is perhaps as perfect as it is on shipboard. The miners are haled into court for any infraction of the rules, such as having matches, pipes, or liquor in their possession, smoking, drinking, or sleeping in the mines, carrying powder or cartridges in pockets or open hands, carrying unlocked lamp, entering place marked dangerous, neglecting to sprag heading, to report defect in ventilating door, presence of gas, or any other neglect resulting in possible injury to miner or horse, and even for failing to report for work when not excused. The fines for these offenses range from $5 upward, according to the circumstances. On the other hand, masters are presented for manslaughter when their neglect causes the death of a miner.

The average British miner is born, and not made, and when he takes up his father's pick he expects to wield it until he surrenders it to his son. This and his temperament and other conditions make him careful and deliberate to a degree unknown in America. It would appear that he is becoming more deliberate year by year, for the average number of tons mined per person has fallen gradually from 314 tons in 1899, to only 279 in 1904. Whether this slowing down of 35 tons in five years is due to the greater difficulties of mining or to the attitude of the miner is an open question.

ENGLISH MINING MORTALITY PRACTICALLY HIGHER.

It is the general impression that the death rate is lower in the British than in the American mines. This is true if the rate be based on the number employed, but such a comparison is not quite fair, because it takes into account only one of the three elements in the problem. The following comparison, using the last complete statistics, those of 1904, tends to show that the British death rate is, in fact, higher than the American:

	America.	United Kingdom.
Tons of coal produced	352,310,427	232,428,272
Miners employed	594,768	833,629
Number of tons per miner	593	279
Average number of days	202	262
Average daily tonnage per miner	2.93	1.07
Number of miners killed	1,996	1,034
Death rate per 1,000 men	3.35	1.24
Death rate per 1,000,000 tons	5.66	4.44

If the comparison is stopped at this point, one element remains unconsidered, for the American tonnage exceeded the British by almost 100,000,000 tons. To produce the American tonnage would require 1,262,761 British miners, while to produce it in two hundred and two days would require 1,637,838 British miners. The employment of that number of British miners, estimating at their own death rate, would cost about 2,035 lives, or at the rate of about 5.77 lives per 1,000,000 tons mined, which is higher than the American death rate.

Putting the matter in another form, the British death rate is reduced 1.33 lives per 1,000,000 tons by producing coal at a slower speed, and the American death rate is increased by 1.22 lives per 1,000,000 tons, by the higher intensity of production, but to balance this loss in part the Americans have the use of 1,042,070 men for employment in other industries.

DISCOVERIES OF MANGANESE.

MANY SCATTERED DEPOSITS FOUND IN MYSORE, INDIA.

The discovery of new and large deposits of manganese in Mysore State, southern India, Consul-General W. H. Michael, of Calcutta, reports, has aroused activity in prospecting and for concessions, concerning which he writes:

The Mysore gold-mining rules have been found inoperative respecting manganese, and it is proposed to formulate new rules. The Dewan is to hold a manganese mining conference to consider the area of mining grants, the royalties that should be levied, and all other matters that pertain to the new and growing industry. Representatives from manganese mining syndicates and companies will be invited to participate in the deliberations.

There seems abundance of manganese in Mysore, but it is found in scattered localities, thus making the transport of ore to the extracting mills expensive and difficult. In view of this the government desires to fix low royalties in order to encourage the industry and to make regulations fair to all. The Dewan is anxious to place the industry on a plane on which individuals and small concerns will be on an equal footing with large syndicates. In fact he seems determined to keep out monopolies. The opening of the manganese mines will be a source of large revenue to the Mysore State and of immense benefit to the laboring classes of that part of India. I understand that an American company has a scientific agent in the Mysore field for the purpose of reporting on the opportunities for investment. The mineral fields of India, I feel quite sure, offer splendid inducements for American knowledge, energy, and capital.

MEXICAN STIMULATION.

Consul Louis Kaiser, of Mazatlan, reports increased energy in mining in the Mexican State of Sinaloa.

Large mines are increasing their output and dormant smaller mines are being cleaned up and preparations made to equip them with the necessary machinery and implements. The new Mexican mining law reduces some of the most important taxes to nearly one-half former amounts, besides reducing the tariff on all kinds of mining machinery to a mere trifle as compared with the former duties. The new mining law also does away with many of the old and troublesome requirements. Copies of it can be obtained from Mexico City, in either Spanish or English, at small cost.

TARIFFS.

CHANGING RATES.

PREFERENTIAL IN AUSTRALIA.

APPROVAL DOUBTFUL—UNITED STATES AND OTHER COUNTRIES ADVERSELY AFFECTED.

Special Agent Harry R. Burrill, writing from Melbourne October 13, reports that on October 12 Parliament in its closing hours passed the bill providing for preferential trade with Great Britain. He writes:

The bill was passed in such form that its approval by the Crown is somewhat problematical. A few of its provisions are, it is asserted, in direct conflict with treaties now in force, and for this reason the action of Parliament may be nullified. Even if this be so, however, the belief is universal among those who are thoroughly in touch with the situation that the measure will be resurrected at the first available opportunity and passed, either in its present form with the objectionable clauses omitted or so amended as to grant even greater commercial concessions to the mother country. Public opinion in Australia is strongly behind the project, and while the recent somewhat abrupt movement of the Commonwealth ministry proposing preferential trade was regarded by several of the leading business men here as merely a shrewd political maneuver planned to influence the approaching federal elections, it unquestionably struck the popular fancy. This preferential duty would mean an advantage of 10 per cent in favor of the United Kingdom as against all other manufacturing countries exporting goods to Australia.

AMERICAN COMMODITIES AFFECTED.

Among the importers of American commodities, which would be affected by the proposed increased tariff, the opinion is practically universal that the trade would suffer a blow from which it would be difficult to recover, but the belief is quite as general that American ingenuity and enterprise would suggest a remedy and devise means to overcome the handicap. For the information of American manufacturers who are engaged in the export trade with Australia the following list of articles, which would be affected by the preferential tariff, together with the present rate of duty and the proposed increase, is submitted.

Dutiable goods.	Present rate of duty.	Duties proposed.	
		United Kingdom.	Foreign countries.
Arms and ammunition:			
Ammunition and cartridges, not elsewhere included.	Free	Free	10 per cent.
Revolvers, pistols, etc	15 per cent	15 per cent	22½ per cent.
Rifles and shotguns	10 per cent	10 per cent	15 per cent.
Arms and rifles (military)	Free	Free	10 per cent.

Dutiable goods.	Present rate of duty.	Duties proposed.	
		United Kingdom.	Foreign countries.
Wicker, bamboo, cane, or wood	20 per cent	20 per cent	20 per cent.
Wooden buckets, blocks, lasts, types, etc	Free	Free	10 per cent.
Bicycles and parts and motor vehicles	20 per cent	20 per cent	30 per cent.
Boots and shoes	30 per cent	30 per cent	40 per cent.
Rubber sand shoes	20 per cent	20 per cent	30 per cent.
Watches, clocks, phonographs, cameras, etc	do	do	Do.
Ship's compasses, etc	Free	Free	10 per cent.
Furniture, billiard tables, etc	20 per cent	20 per cent	30 per cent.
Engines, gas and oil, high-speed engines and turbines, water and steam	12½ per cent	12½ per cent	22½ per cent.
Paints and colors in liquid, per hundredweight	2s.	2s.	2s. 6d.
Prepared for use, per hundredweight	4s.	4s.	5s.
Ceramic and artists' colors	Free	Free	10 per cent.
Paper, strawboard, per hundredweight	1s.	1s.	1s. 6d.
Paper bags, per hundredweight	5s.	5s.	6s.
Paper hangings	15 per cent	15 per cent	25 per cent.
Cutlery	do	do	Do.
Plated ware	20 per cent	20 per cent	30 per cent.
Starch, per pound	2d	2d	2½d.
Pickles, sauces, etc.:			
Quarter pints and less, per dozen	6d	6d	7½d.
Half pints and over quarter, per dozen	1s.	1s.	1s. 3d.
Pints and over half pints, per dozen	2s.	2s.	2s. 6d.
Quarts and over pints, per dozen	4s.	4s.	5s.
Exceeding a quart, per gallon	1s. 4d	1s. 4d	1s. 8d.

VALUE OF IMPORTS FROM UNITED STATES.

In order that the effect of such legislation may be more fully comprehended by the exporters of the United States the following figures, taken from the "Trade and Customs Returns of the Commonwealth of Australia," are given. They show the estimated value of the goods imported from the United States into Australia in 1905 which would be affected by preferential trade:

Arms and ammunition:		Engines:	
Cartridges	$620,000	Gas and oil	$90,000
Revolvers and pistols	7,500	Other	400,000
Rifles and shotguns	120,000	Paints and colors	220,000
Wicker, bamboo, or cane	5,000	Paper, strawboard, bags, and paper hangings	37,000
Wood, and manufacturers of	109,000	Pickles, etc	17,000
Bicycles and parts thereof	80,000	Cutlery	25,000
Boots and shoes	425,000	Plated cutlery and ware	90,000
Watches, etc	85,000	Starch	2,000
Furniture	300,000		

Enthusiastic advocates of the preferential trade legislation insisted that under its operation a very large proportion of the trade in the various articles affected by its provisions and now enjoyed by the United States and other foreign countries could be diverted to Great Britain. By just what method of calculation or reasoning this conclusion was reached has not been made clear, for any estimate of the practical working of such a law would be purely problematical.

TRADE ADVANTAGES TO GREAT BRITAIN.

Importers and business men generally have been speculating on the results such legislation would accomplish, and have expressed various and conflicting opinions regarding the injury it would inflict on foreign countries and the corresponding benefits that would accrue to England. An Australian trade expert, who was a delegate from the Commonwealth to the congress of the chambers of commerce held in London last July, made the following estimate of the value of articles imported which might be diverted from their present country of

origin to Great Britain: America, $1,000,000; Germany, $150,000; Canada, $60,000; Netherlands, $25,000; France, $25,000, and Belgium, $20,000—total, $1,280,000. The expert referred to, however, sounded a significant note of warning regarding a possible retaliatory policy on the part of the foreign countries affected by preferential tariff, and pointed out what its effect might be on wool, the great export staple of Australia.

The total export of wool from the Commonwealth for 1905 was 1,237,672 bales, of which 559,645 went to the United Kingdom. France took 287,855 bales, Belgium 117,352, and Germany 193,814. With the possible imposition of 2 cents a pound retaliation, as has been suggested, on all wools not carried to the Continent in foreign bottoms, he pointed out that the additional freight on wool shipped to Germany, France, and Belgium under those conditions would approximate $4,500,000, which would have to be borne by the producer.

FRENCH AND GERMAN PROTEST.

The French Chamber of Commerce, at a recent meeting held in Sydney, in protesting against preferential trade, called attention to the actual proportions of the commercial interchange between France and Australia. It was pointed out that during the year 1905 the direct exports from Australia to France were approximately $28,000,000, while the direct imports from France into Australia amounted in round numbers to $2,600,000. These commercial relations, presenting for Australia preponderating advantages, should not, the chamber suggested, be compromised by discrimination against French importations, and intimated that retaliatory measures which would weigh heavily on Australian exports to France might result.

Importers of German goods are also outspoken in their denunciation of preferential trade, declaring that it would deal a heavy blow to a business that has taken years to build up, and that still more serious injury may be inflicted in the future because of the probability of a constantly increasing list of articles to be affected.

COMMERCIAL PROBLEM TO SOLVE.

Whatever action may be taken, the fact remains that with the first installment of preferential trade with Great Britain an accomplished fact the manufacturing countries affected by such legislation will have a serious commercial problem to solve. They must compete with the English-made article of the same description having a 10 per cent advantage on the cost of export. American manufacturers, especially, must take that important item into consideration when figuring on the maintenance of their trade connections with this country. They must then meet the English price and it is quite as essential that they retain the quality of their output.

As a political battle cry patriotism is popular and effective, but it fails to influence to any appreciable extent the hard-headed business man of Australia who will buy the goods required by the consumer in the cheapest market, irrespective of the country or origin, and in this disposition lies a possible solution of the difficulty.

RATES ON FARMING MACHINES.

A specific duty of $60 has been imposed on harvesters, or strippers, as the machines are known at home, which, added to the cost of manu-

facture, freight, etc., makes the price laid down at Australian ports practically prohibitive. This duty falls with almost equal severity on Canadian manufacturers, who divide with the United States the sale of agricultural implements of foreign make used in Australia. Australian manufacturers of these implements are reaping a golden harvest through the protection afforded by the high tariff to their industry. It is probable that it will also stimulate them to extend their production of other farming implements and thus force the foreign manufacturers of these articles either to erect factories here or abandon the field. This may be an extreme view, but it is held by conservative business men who are fully in touch with the situation. It is the theory and practice of "Australia for Australians" and "protection for home industries."

Parliament has also provided for preferential trade between South Africa and Australia, but the proposition to establish reciprocal trade relations between this Commonwealth and New Zealand has been defeated. The Parliament of New Zealand declined to ratify at this session the agreement entered into between the late premier of New Zealand and the prime minister of Australia, although it is believed that reciprocity between the two countries will eventually be established.

IMPORTANCE OF PREFERRED RATES.

American manufacturers and exporters should look the trade situation in Australia squarely in the face, for it seems probable that nothing can now prevent a discrimination against our goods in favor of Great Britain. Preferential trade is in the air, and careful observers of political and economic conditions assert with confidence that after the first installment shall be provided constantly increasing concessions may be looked for. There should be no attempt made to depreciate or minimize the importance of the contemplated action in favor of the mother country or its effect on trade in American goods in the Commonwealth.

It is apparent that with preferential trade in force the manufacturers of the United States, in order successfully to compete and retain their hold on the market, would be compelled so to adjust their prices as to meet those of preferred Britain and at the same time rigidly to maintain the standard of their goods.

COLLECTION OF PREFERENTIAL DUTIES SUSPENDED.

Consul-General J. P. Bray, of Melbourne, reports, under date of October 12, that the British trade preference bill, passed by both houses of the Australian Parliament, contains the section relating to preference to goods by reason of the nationality of the vessel carrying them, which is in conflict with certain treaties between England and other countries. The bill has been reserved for the King's approval, and if assented to will become a law.

The preferential customs duties, collectable under the provisions of the bill, have been ordered by the Minister of Customs to be discontinued and the amounts paid up to date refunded. Should the bill in its present form be vetoed by the King, it is intimated that the Commonwealth Ministry will at once prepare and introduce another bill with the objectionable features omitted. The people of Australia are undoubtedly in favor of reciprocity with England.

COMPLETION OF TREATY WITH SOUTH AFRICA CUSTOMS UNION.

Mr. Bray also reports that the prime minister of Australia made the following statement in the House of Representatives in regard to preferential trade with South Africa:

Arrangements have been concluded for a preferential treaty between Australia and South Africa. The negotiations have been prolonged over many months, but they have now been satisfactorily completed, owing to the great interest taken by the high commissioner, Lord Selborne. The treaty affects five separate states in South Africa, and the difficulty was that practically the whole of the trade between the two countries consisted of exports from Australia, the return trade being very small at present. The treaty has been drafted with consideration to that fact, and as members are aware, under the terms of the South African Customs Convention, concessions are made by way of reduction of duties. I hope now that the negotiations have been brought to a successful issue that the treaty will be approved by members of all parties and be passed next week.

The details of the treaty have not been disclosed, but they are known to involve a reduction in duties on Australian goods, with a special arrangement in regard to one or two products for which the South African governments are specially anxious to secure the Commonwealth markets.

FRANCE FEELS ENTITLED TO CONCESSIONS.

In relation to the preferential tariff in favor of England now being debated by the Parliament of Australia, the following resolution was passed by the leading commercial representatives of France residing in Australia:

The latest Federal statistics show that during the year 1905 the direct exports from Australia to France reached the total of £5,762,904 ($28,045,172), while the direct imports from France into Australia totaled only £510,950 ($2,486,538). France has therefore bought in 1905 eleven times more Australian products than she has sold of French goods. It seems desirable that such commercial relations, presenting for Australia preponderating advantages, be not compromised by the proposed increased duties against French importations. It is evident, moreover, that any similar tax, which very probably would be established in France as a retaliatory measure, would weigh heavily on the Australian products that are imported there in lowering by as much the price limits of the French buyers and their so useful competition on the markets of Australia and England. That the establishment of the preferential tariffs, if it came to be effected, would have for very probable consequence the adoption of retaliatory measures, which the French Government would feel compelled to take as a reply to aggressive methods, in raising the duties on Australian products or taxing such goods hitherto admitted into France free of duty.

It was directed that said resolution be forwarded to the Australian Federal authorities.

NEW ZEALAND PREFERENTIAL.

RATIFICATION FAILS—STATEMENT OF THE PRIME MINISTER.

Consul-General Bray, under date of October 9, writes that the preferential trade agreement between Australia and New Zealand has lapsed, owing to the refusal of the legislature of the latter country to ratify it, and there does not seem any probability of the subject being renewed. The prime minister of the Commonwealth, in speaking on the subject, said:

"The New Zealand fruit growers, farmers, and flour millers had protested against this agreement, and there was objection to the loss of revenue involved by relation to sugar. The late premier of New

Zealand had these items clearly in his mind, and with a full knowledge of that he still threw the great weight of his reputation into the scale in favor of the treaty. The difficulty with New Zealand was to frame a reciprocal treaty between the two countries, whose conditions and products were so similar."

SOUTH AFRICA.

THE TAX ON CATALOGUES REDUCED.

The catalogue tax imposed by the British colonies in South Africa brought forth very earnest protests from the exporters in the United Kingdom. A complaint sent to the British Government was answered by Lord Elgin with the statement that the high commissioner for South Africa had reported that it had been decided to relax the restrictions on the importation of catalogues and price lists to the following effect:

"Ordinary catalogues and price lists imported through the post weighing less than 8 ounces will not be charged with duty, but in the case of South African firms sending large quantities of catalogues or advertisements through the post duty will be charged upon them even if weighing less than 8 ounces. The Natal, Transvaal, and Orange River Colony governments and the administration of Southern Rhodesia have further agreed to forego the 6-penny delivery fee hitherto collected on catalogues or price lists imported through the post. The Cape government has made a like decision with regard to similar articles imported by book or letter post."

The London Times says: "Compared with the original tax and the 'clearance fee' of 6d., the procedure which is sanctioned by this agreement seems fairly reasonable. It will be noted that the Cape still intends to exact duty on catalogues, etc., imported by parcels post. Why a line should be arbitrarily drawn between catalogues of 8 ounces and those over that weight is not stated."

In addition to the abolition of the duty on catalogues weighing less than 8 ounces the Natal, Transvaal, Orange River Colony, and Rhodesian governments have agreed to forego the 6d. delivery fee hitherto collected on catalogues or price lists imported through the post, and the Cape government has made a like decision with regard to similar articles imported by book or letter post. But the whole impost is still in force in respect to South African firms sending large quantities of catalogues or advertisements through the post.

DENMARK.

PROPOSED CUSTOMS CHANGES.

The Danish minister of finance has laid before Parliament a bill to authorize the introduction of a new customs tariff in substitution for the tariff act of 1863.

The proposed tariff is based on the existing customs rates, and tends further in the direction of lower rates. In the compilation of the scheme the Government has refrained from acceding to the request of trade organizations in favor of the adoption of a double tariff, and the proposals are founded upon the levying of duties according to weight. The tariff provides for the admission free of duty of coal, petroleum, and rock salt, and the reduction of the rates on coffee, rice, sago, and

refined salt. The abolition or reduction of the duties is contemplated in regard to the most essential raw materials, while free admission is to be granted to hoop and bar iron, iron wire, plates, and tubes. It is also proposed to lower the imposts on benzine, machine oil, leather, cotton and woolen manufactures, dress goods, machinery, screws, chains and anchors and other heavy iron goods, various kinds of glassware, earthenware, and manufactures of metal, wood, and india rubber. On the other hand, duties on articles of luxury are proposed to be increased, as, for instance, on raw tobacco and manufactures thereof, wines, cocoa, fruits, tinned foods, silk goods, instruments, toys, perfumery, etc. The importation of ships is to be exempt from duty, and the duties on shipbuilding materials will be refunded. It is estimated that the projected tariff alterations will result in a loss of 8,500,000 crowns per annum (crown 26.8 cents), but this will be reduced to 2,000,000 crowns by increasing the inland taxation on spirits and "death duties."

SPAIN.

SCHEDULE ON EMERY PRODUCTS.

Under date of November 2, Consul-General Ridgely, of Barcelona, reports briefly on that feature of the new Spanish tariff which relates to emery wheels and emery products, and substitutes for emery, such as alundum and carburundum.

Under the old tariff, which ceased to be effective on the 30th of last June, all these products coming from the most favored nations paid 20 centimos silver (about 3 cents) per 100 kilograms (220 pounds) and 40 centimos (6 cents) when coming from the nontreaty nations. Under the tariff now in force emery wheels weighing more than 25 kilograms (55 pounds) each pay at the rate of 30 pesetas gold ($5.79) per 100 kilograms, and wheels weighing less than 25 kilograms pay 120 pesetas ($23.16) the 100 kilograms. As wheels of greater weight than 25 kilograms are very rarely used in Spain the duty on emery wheels is now practically $23.16 per 100 kilograms instead of 3 cents. In other words, the duty when paid in gold has been increased 600 times, and considering the depreciated silver currency in which it was formerly paid it has been increased 660 times. This new duty is also held to apply to alundum, carburundum, and other similar substitutes for emery.

BRAZIL.

COLLECTION OF EXPORT TAX ON COFFEE.

Under date of October 4, Ambassador Griscom forwarded the text of a decree issued by the president of the State of Sao Paulo, Brazil, regulating collection of the special tax of 3 francs per bag of coffee produced in and exported from that State. The tax must be paid in gold or its equivalent in currency at the rate of exchange on the day of entry for export.

GERMANY.

SWEET POTATOES ADMITTED FROM AMERICA.

According to a decision of the Prussian ministry of finance, of August 20, 1906, the sweet potato (Ipomoea batatas, Convolvulus batatas, Batatas edulis) is not related to the ordinary potato (Solanum tubero-

sum), and its importation from the United States into Germany is not prohibited, as is the Irish potato. The conventional duty (payable by imports from the United States) on fresh potatoes is 1 mark ($0.238) per 100 kilos (220 pounds), from February 15 to July 31. During the remainder of the year fresh potatoes are admitted free.

INDIA.

LIMITATION OF FIREARMS.

A notification has been issued by the government of British India to the effect that no license will be granted for the importation of any rifles of .303 bore or rifles of .450 bore by sea or river or land into British India. It is made an offense for persons to be found in possession of such firearms or of bore ammunition which can be fired from such rifles.

CANADA.

TAX ON COMMERCIAL TRAVELERS.

The provincial premiers who recently held a conference with Sir Wilfred Laurier, in Ottawa, Canada, are said to have had a satisfactory consideration of the question of modifying or repealing the tax on nonresident commercial travelers, which is levied by the provinces of British Columbia and Prince Edward Island, and the tax on foreign travelers in Quebec Province. As the tax stands in the province of Quebec, it calls for the payment of $300 per year for those foreign travelers calling on liquor firms; a yearly tax of $100 on those calling on wholesale houses only; $200 per year on those calling on both wholesale and retail houses. A six months' license is sold and cuts these figures in half. British Columbia has a nominal tax of $100 on all travelers representing firms outside the province. Prince Edward Island has a nominal tax of $20 on travelers who represent firms outside of the province. These three provinces are seriously considering a withdrawal of this business restraining tax.

MEXICO.

EXPORT TAX ON SILVER.

Consul-General A. L. M. Gottschalk furnishes the text of the new bill unanimously approved by the Mexican Chamber of Deputies providing for an export tax of 10 per cent upon the silver peso.

In the law is a clause which provides that holders of pesos will be permitted to export them by depositing with the Exchange and Currency Commission pure gold to the amount of 75 centigrams (centigram equals 0.1543 grain) per peso. Gold will be immediately coined, which maintains the currency of the country, and the holder saves his profit. The preamble of the bill states:

> The high price which silver has reached during the past year has permitted the Republic to realize almost to the fullest extent, and much sooner than was anticipated, the monetary system established by the law of March 25, 1905; and this, too, without any loss or injury, but rather with considerable gain for the holders of Mexican silver pesos, and also for the public treasury, which was able to convert these dollars into gold money rapidly coined and put into circulation in sums which reached more than fifty million pesos.

ASIA.

BRITISH INDIA.

COMMERCE OF THE NORTHWEST.

KARACHI AS A DISTRIBUTING PORT—IMPORTS FROM THE UNITED STATES LIMITED—MARKET FOR COTTON GOODS.

Special Agent Charles M. Pepper, writing from Karachi, the distributing port of northwest India, tells of its growing importance, and the opportunities offered, though not availed of at present, to increase trade with the United States. He says:

The bulk of the sea-borne commerce of northwestern India is through the port of Karachi, or Kurrachee, as the name is often written. After Bombay it is the only seaport of commercial consequence on the western coast. It is within the administrative jurisdiction of the Bombay presidency, and its customs traffic is included within the former in the general trade statistics of the Indian government, yet the traffic is important enough to call for consideration separately.

THE COMMERCIAL IMPORTANCE OF KARACHI.

Karachi lies on the Arabian Sea, in 25° north latitude, and is the outlet of the cotton-growing province of Sind, but it is the commercial capital of a much larger area than is contained in the limits of this province. For hundreds of miles back of it stretches the Thar or great Indian desert, a comparatively small section of which is irrigated by the canals from the Indus River, and if it were dependent on this region alone it would be a comparatively unimportant coast town instead of the prosperous city of more than 100,000 inhabitants which it actually is. But its importance is more as an outlet and inlet for the districts whose borders are reached 500 or 600 miles back from the coast across the desert. Of these regions the province of Punjab, in the north, is the principal one, and this is the wheat-raising section, though the grain growing extends also to the neighboring provinces.

INDIA'S WHEAT CROP.

In ordinary years India, in addition to shipments to the Continent, supplies more grain to Great Britain than is done by any other country. This has not been the case during the last two years because of local conditions that reduced the crop and caused a larger quantity to be kept for home consumption; but the prospects for next season's crops can already be discounted with some certainty, and they indicate that there will again be a heavy surplus for export. About 90 per cent of the Indian wheat crop is shipped through Karachi, the quantity last year having been 1,100,000 tons, though a higher mark—1,400,000 tons—was reached in 1904. The land to be brought under irri-

gation within the next few years, and the areas to be opened to cultivation by railway extensions, are expected to add substantially to the annual wheat crop in the districts tributary to Karachi. The city is in no danger of losing its supremacy as the great grain export center. The annual shipments are expected to reach 2,000,000 tons soon. Because of its wheat shipments Karachi is in constant touch with Chicago, Buenos Ayres, and Liverpool, so that its cosmopolitan character may be said to be established.

EXPORTS OF PRODUCTS OTHER THAN WHEAT.

Other agricultural products besides wheat are exported in considerable quantities, among them barley and seeds, the latter including rape seed and linseed, for both of which the demand is steady. Rice also is shipped. Wool, sheepskins, goatskins, and hides also enter largely into the export trade. The United States receives few hides, but there is a large business in skins, the principal shipments being to Boston, Philadelphia, and New York, in the order named. There are four grades of wool, known as Bikaner, Pakputtan, Punjab, and Randahar, from the districts in which they were produced. The Bikaner is the most valuable. The American exports are chiefly to Philadelphia. The quality is fair, but the unwashed wool is shipped in order to bring it within the tariff schedules. Some skins are now shipped to Canada, and also wet hides and dry bones.

SACRED CATTLE SHIPPED TO TEXAS.

The so-called sacred cattle of India, which have recently been imported into Texas by Mr. Borden, of that State, were shipped from Karachi with the sanction and under the careful watch of the United States Department of Agriculture. Most of the animals were bulls. Should the expectation of the imperviousness of their hides to ticks and also their breeding qualities be demonstrated, it is likely that other shipments of India live stock will follow.

SHIPMENTS OF CARPETS AND COTTON.

Fine rugs and carpets from the hand looms at Amritsar, on the slope of the Himalayas, are exported through Karachi to the United States, a large business being done directly with New York.

The cotton product of Sind, which has a better reputation than that of most other grades of Indian cotton, is shipped entirely through this port to Liverpool and to the Continent. The volume does not vary greatly from year to year, though there is some increase in the annual average. High hopes are held out of a notable addition to the crop through the introduction of the long staple Egyptian cotton for which the soil and climate of Sind seem to be more suitable than in other sections of India. Seed has been distributed among the cultivators by the government, which is carrying on the experiment under the direction of an experienced Egyptian cotton grower. The first results are reported to be very satisfactory, but it will take several years to determine whether the staple can be reproduced or whether fresh seed will have to be imported from Egypt for the successive crops. Should the cultivation of the Egyptian staple ultimately prove a commercial success, it is more likely to add to the export of native yarns and piece goods rather than to those of raw cotton, since the native mills would consume the product.

IMPORTS DISTRIBUTED FROM KARACHI.

The facilities which make Karachi a leading point for export traffic apply equally to imports. While no one class of articles imported equals in volume and value the grain exports, the aggregate is large. Karachi serves as a distributing center to all the territory whose products pass through it for shipment abroad. Imported goods are distributed far beyond the limits of the railways. Afghanistan is reached by various routes, and at the terminus of the railroad at Quetta, in British Baluchistan, a considerable traffic is carried forward over the caravan routes by camel transport into Persia. Central Asia is also penetrated. The Persian Gulf ports are reached by water transportation, Karachi being the nearest point and vessels running directly to the gulf as well as transshipping; but it is to be considered chiefly as a distributing center by the land routes.

FOREIGN PRODUCTS PURCHASED IN THIS PART OF INDIA.

The principal imports are sugar, kerosene oil, cotton piece goods, and metal manufactures. Though some sugar is produced in the Punjab, it is far from sufficient for the local consumption. Cane sugar is imported from Java and Mauritius and beet from Austria and Germany. In beet sugar Austria has the advantage over Germany because of quicker transportation.

Tobacco is also imported chiefly to supply a local cigarette industry which has been established in Karachi by the British tobacco trust.

Importations of kerosene oil are very heavy, the supply coming from the United States, Russia, and the Malay Straits. Burma oil of low grade is also imported, but while this adds to the volume of shipping traffic it can not be considered under the foreign commerce, since Burma is part of the India Empire and its products pay no duty. The competition between the Standard Oil Company and its rival, the Asiatic Petroleum Company, is very keen, and both are now shipping to Karachi in bulk, the Asiatic company importing the Sumatra oil.

MARKET FOR COTTON GOODS.

The Karachi market for cottons is in many respects similar to that of Bombay, and some of the territory it serves is in competition with Bombay. The only American goods known are the Pepperell drills, yet the demand is broad enough to command the attention of other American manufacturers. For their benefit I subjoin the import classification of the Karachi Chamber of Commerce, which indicates the nature of the goods in demand and the wholesale prices during the current month (October). These prices include the customs duty of 3½ per cent ad valorem.

Description of goods.	Market value.	
	From—	To—
Gray goods:	*Rs. a. p.*	*Rs. a. p.*
Shirtings, 7 pounds, 32 inches wide, 37-37½ yards long, per piece	2 6 6	3 2 6
Shirtings, 8½ pounds, 32 inches wide, 37-37½ yards long, per piece	3 2 6	3 14 6
Shirtings, 10 pounds, 32 inches wide, 37-37½ yards long, per piece	3 15 0	5 14 6
T cloths, 7 pounds, 28 inches wide, 24 yards long, per piece	2 14 6	3 4 6
Jaconets, 31-32 inches wide, 18 yards long, per piece	1 11 9	2 6 9
Peppercll drills, 29 inches wide, 40 yards long, per piece	8 14 0	.....
Bleached goods:		
Liepmann's shirtings, 1500, per piece	9 3 0	.....
Jaconets, 33 inches, 18 yards, per piece	2 0 0	4 0 0
Nainsooks, 51000, 29 inches, 18 yards, per piece	2 8 6	.....
Mulls, 900-12000, 29 inches, 18 yards, per piece	2 1 0	.....

Description of goods.	Market value. From—	To—
Turkey red goods:	*Rs. a. p.*	*Rs. a. p.*
Twills, 28 inches, 50 yards, per piece	8 12 0	12 0 6
Cambrics, 20 inches, 28 yards, per piece	1 11 6	4 6 6
Mulls, 30 inches, 20 yards, per piece	1 12 6	2 12 6
Yarns:		
Gray, 40's, mule, per pound	10 6 0	10 9 0
Gray, 50's, mule, per pound		
Turkey red, 40's, F. W., per pound	14 6	1 1 0
Turkey red, 30's, F. W., per pound	14 0	15 6
Colored, 40's, yellow, L. W., per pound	12 0	12 6
Colored, 40's, pea green, L. W., per pound		
Colored, 40's, dark green, L. W., per pound		
Colored, 40's, orange, L. W., per pound	13 0	13 6

Rs., rupees; *a.*, annas; *p.*, pie. 1 rupee=32.5 cents; 1 anna=2 cents; 1 pie=¼ cent. For example, "shirtings, 8¼ pounds, rs. 3, a. 2, p. 6"=$1.02¼ cents.

IMPORTS OF IRON AND STEEL AND PROVISIONS.

Imports of iron and steel products through Karachi are constant, and of late there has been a noticeable growth in rails and railway material due to railroad extensions in the interior districts. Great Britain practically monopolizes the iron and steel trade, though Germany is making efforts to secure some of it.

In a variety of sundry imports of provisions the United States has its products represented, though they do not appear as American goods. Canned fruits and vegetables—California pears, Kansas tomatoes, etc.—are well known and have good reputations. They are, however, shipped by the English jobbing houses.

TRANSPORTATION FACILITIES.

Something of the transportation facilities of Karachi, of course, will be understood from the statement of its trade. The inland transportation is through the medium of an extensive broad-gauge trunk-line system—the Northwestern Railway—which is owned and operated by the government. It maintains a double track between Karachi and Hyderabad, a distance of 110 miles, where the Indus River is crossed. At Hyderabad a junction is made with other lines, which act as feeders to the main system.

Ocean transportation is supplied by a number of competing lines. Some of the English lines maintain a direct service from Liverpool and Hull to Karachi, while the Austrian Lloyds has a regular monthly passenger and freight service from Trieste. The German lines touch at irregular intervals. Some of the vessels coming through the Suez Canal transship cargo for Karachi at Aden, but this is not often done. A few vessels destined for the Persian Gulf make Karachi a port of call. Where direct communication is not had transshipments are made at Calcutta, Colombo, and Bombay, the latter port being only 600 miles distant, the English, French, and Italian lines transship there. Liberal appropriations are made for harbor improvements by the Government from time to time, which increases the shipping facilities, and the Karachi harbor is now being enlarged.

THE UNITED STATES DOES NOT SELL MUCH AT KARACHI.

It should be clearly understood that the bulk of the import trade that passes through Karachi, especialy of manufactured articles, is in British hands. Nevertheless, the Germans have entered into active

competition for a share of it, though they are handicapped by the stringent provisions of the Merchandise Marks act, which makes it impossible for them to sell cheap imitation articles as British goods. In a week's stay I have met with more German than English commercial travelers.

The United States, as appears from the comparison of articles imported from Karachi with those exported to it, is concerned in the commerce much more as a buyer than as a seller, and the activity of the American consular agent is principally directed to making out invoices for goods to be shipped, though occasionally he is called on in regard to an importation of goods from the United States. The volume of traffic which flows through Karachi is so heavy that a serious mistake is made in regarding it merely as a local port. It should be recognized as the distributing port for northwest India, and its commerce be studied with that knowledge. For this reason its geographical position is important and I have sought to describe it in that relation.

TRADE IN NORTHERN INTERIOR.

A MARKET FOR COTTON PIECE GOODS—HOW TO ENTER IT.

Special Agent Pepper, writing from Amritsar in northern India, also tells what should be done to sell American cotton goods in that part of India. Americans purchase skins, carpets, and rugs in Amritsar, but sell nothing in return. How this one-sided trade should be changed is told in the following letter:

American manufacturers and exporters who are looking for a market for cottons in India should not confine themselves to the ports of Bombay and Calcutta. Direct importations are made at a number of places in the interior and among these is the city of Amritsar, which is a distributing point for central Asia as well as for populous northern India. It is a great and growing market and in Indian commercial circles is looked upon as certain largely to increase the volume of its trade from year to year.

Amritsar does business directly with the United States, but this is principally a one-sided business for it consists in exports of sheep skins and goat skins, carpets and rugs. New York importers take a large share of the carpets and rugs for which the handlooms of Amritsar are famous, while the Persian rugs and the cashmere carpets are also brought here for shipment to America. Thus it happens that though the currents of commerce flow only one way the means of information and the facilities for an exchange of commodities by the United States, instead of transmitting cash, exist, and American manufacturers who are ready to exploit foreign markets will find the situation favorable.

IMPORTANCE OF AMRITSAR AND ITS PIECE-GOODS TRADE.

Amritsar is a native city of more than 150,000 inhabitants in the Punjab, a little less than 1,200 miles from Bombay and a little more than 1,200 miles from Calcutta by the railway routes. From Karachi, on the Arabian sea, whose geographical position as a port of distribution is described in the previous report, the distance by rail is about 800 miles. For this reason, though some importations are made through Bombay and Calcutta, the bulk of the imports are through Karachi.

The piece-goods trade centered at Amritsar is in drills, nainsooks, muslins, sateens, etc., with increasing sales of colored prints. Pepperell drills have served to establish the reputation of American goods, and these are now supplemented by other drills from the United States. A good demand exists for this class, but advantage has not been taken of the demand. Commission agents and dealers who have opened correspondence with the mills in the United States, or their sales agents, complain that they are referred to the London agents and that they get little satisfaction from the latter. This also has been the case with other cotton products than drills. It is a most unsatisfactory way of pushing the sale of American goods, particularly where the inquiries come from dealers who are ready to help increase an established market or create a new one.

WHAT IS WANTED IN COLORED PRINTS.

My attention has been called by commission firms in Amritsar to the growing trade in colored prints as a most promising field for the introduction of American goods, and therefore samples are forwarded to the Bureau of Manufactures with the name of the native firm, through whose agency they were procured. Until the mills in the United States choose to familiarize themselves more fully than they have heretofore shown a disposition to do with the requirements of the Indian trade in piece goods these samples, bought in the Amritsar bazaars, may serve to indicate the nature of the existing demand. The samples, while a small selection and not to be understood as complete, reflect the prevailing popular taste and fairly represent the class of colored prints for which the average demand is greatest in October, 1906.

They are meant to show the quality only, designs being furnished by the dealers or commission agents. Lengths are variable, but widths in inches are given and prices per yard in terms of pence or English currency. Prices are free Karachi Harbor, c. i. f. i. c.—that is, costs, insurance, freight, interest, commission. In all colored prints for the Amritsar market fast colors are of prime importance. The vegetable dyes which are used in the carpets and rugs woven in the hand looms of this region may be said to create a standard of colors which can not be overlooked in imported calicos.

THE BROKER IS THE RESPONSIBLE AGENT.

The import commission business of the Amritsar market is divided between natives and Europeans. Some Calcutta firms maintain branches with local managers, and the representatives of Manchester make periodical visits. While European brokers are entirely willing to take orders for American mills, if they can see a fractional margin of profit above Manchester, for various reasons they are not so ready to seek new connections as are the native commission agents. But in either case the first point for the exporter in the United States is to determine, through the banks and by other means, the trade reputation and the financial standing of the broker. With the actual merchant he has no concern. The broker's commission varies from 2½ to 3 per cent, and he is the responsible and only party in the transaction. This will be understood better from an explanation of the indent merchant system under which the piece-goods business of India is so largely conducted.

THE INDENT SYSTEM.

The local dealer executes a contract or agreement, of which the following form, an actual indenture to a native firm in Amritsar, is an example:

Indent No. ———.

AMRITSAR, *November 1, 1906.*

To Messrs ——— ———, *Ghulam Sadiq.*

DEAR SIRS: 1. I (we) hereby agree to purchase from you the undermentioned goods at the limits and terms stated below, and for reimbursement I (we) authorize you or your correspondents to draw upon me (us) at 30 days' sight with all relative shipping documents attached for payment, which draft I (we) engage and bind myself (ourselves) to accept on presentation and pay at maturity, or to pay you the invoice amount within 30 days after the receipt or presentation of invoice, notwithstanding any objection I (we) may have regarding or on account of any variation whatever from terms of the indent, such objections if not settled amicably to be referred to arbitration as provided for below.

2. Should I (we) fail to accept the draft on presentation or to pay at maturity or do not pay you within 39 days of the receipt of invoice, I (we) hereby authorize you, or your agents, to sell the goods by public auction or private sale, when and where you like, after having given me (us) 10 days' notice of your intention to do so; and I (we) bind myself (ourselves) to make good to you any loss or deficiency sustained through my (our) default, including all charges and interest at 9 per cent per annum, together with your 5 per cent reselling commission, I (we) waiving all claims to profit should there be any. In case of public auction printed notices of sale to be distributed in the Amritsar market.

3. It is clearly understood that my (our) not accepting the draft on presentation or not paying the same on or before maturity or your invoice amount, will not entitle me (us) to arbitration or to make any claim, of whatever nature, against the goods, though I (we) may take up the same later on.

4. It is distinctly understood that if my (our) offers are "free Indian Harbour" no interest is to be charged from date of draft to the approximate due date of arrival of remittance in Europe.

5. Insurance is to be effected by you as usual, any claim against the insurance company will be recoverable by me (us), provided I (we) have retired the relative draft or paid you the invoice amount on or before due date. Should I (we) fail to retire the draft or to pay you the invoice amount on due date I (we) forfeit all claims against the goods or against the insurance company.

6. Bill of lading date shall be conclusive evidence, as to date of shipment and 15 days' delay in shipment shall not cancel the contract. If the goods, or any portion thereof, are shipped prior to the time stipulated, I (we) shall have no right to reject the same, but shall accept them and will recover from you, in Amritsar, interest at 6 per cent per annum for the prior days of shipment after paying for the draft (or the invoice) at maturity. With reference to goods ordered with shipments extending over two or more months, the first or any shipment being late, or the omission of any shipment or shipments, shall not vitiate this contract; each shipment to be taken as a separate contract, and I (we) shall not claim for late or nonshipment of such one or more lots.

7. I (we) do not hold you responsible for late shipment, nonshipment, or nondelivery arising from strikes, lockouts, accidents at factories, bankruptcy or failure of your manufacturers or suppliers, or for nonarrival or late arrival from perils of the sea, quarantine or stoppage in the Suez or Manchester canals, or any other unforeseen causes. Should any portion of the goods not be shipped from causes other than those above mentioned, notice of such delay must be given to me (us) within three days after the arrival of mail from Europe, leaving there after the first week of the extreme time of shipment. It shall be my (our) option within three days after receipt of your notice either to cancel such late portion or to extend time of shipment as requested, or you may ship the late portion at your own risk within two months after the time stipulated and given me (us) the option of refusing or accepting the goods, and I (we) shall have no claim against you for late shipment. In case of nondelivery, excepting for above reasons, I (we) hold you responsible to pay me (us) whatever damages may be assessed by arbitration as provided for below.

8. Representing patterns to be delivered to me (us), as far as possible with the invoice, but should the patterns be lost through any accident you must deliver before the due date of the draft or the invoice the duplicates, failing which you will have to give in writing the correctness of the goods, taking the responsibility upon yourselves.

9. First half, or beginning of a month, means 1st to 15th; second half, or end of a month, means 16th to the last day of the month.

10. Goods sold "per piece" overlengths not to be charged for and underlengths to be allowed for. For goods sold "per yard" a margin of 5 per cent, more or less, of the total yardage ordered is allowed for variation in length. A margin of an inch in 36 inches, more or less, is allowed for variation in width of pieces. Underwidth to be allowed for, however, and overwidth not to be charged for. This will apply only to shawls, scarves, and dhoties, and not to prints, whites, and greys.

11. With regard to indents sent by mail I (we) may request you, within 15 days after date of indent, to wire cancelling the whole or any portion of the same at my (our) cost. If the indent has been placed by your correspondents, before receipt of your telegram, I (we) shall accept the goods; but if the goods are bought by your correspondents, after they receive your telegram, or if you fail to wire, after being requested by me (us) in writing to do so, I (we) shall not be responsible for the execution of the indent or such portion as is so referred to.

12. If after receiving acceptance of any of the offers in this indent you do not confirm the same to me (us), but sell to some other buyer, I (we) hold you responsible to pay me (us) whatever damages may be assessed by arbitration in Amritsar, as provided for below, but should I (we) fail to increase my (our) limits to the prices demanded by your correspondents for any of these goods you are at liberty to sell them in any way you choose.

13. No claim or dispute of any sort whatever can be recognized if not made in writing within 10 days from the due date of the draft or your invoice after full payment.

14. All disputes or objections regarding this contract if not settled amicably on my producing the goods for your perusal must be referred to arbitration of one native and one European merchant or representative of a European firm in Amritsar or Karachi, nominated one by each party, whose decision or the decision of an umpire appointed with your and mine (our) consent in Amritsar, or that of the chamber of commerce, Karachi, will be final and binding upon you as well as upon me (us), and the survey fees with all other expenses will be borne by the losing party; but if the award be less than or equal to the amount offered by you before going to survey the whole cost of survey shall be borne by me (us). If within 10 days after being requested by letter addressed to the usual place of business either party fails to appoint an arbitrator, ready and willing to act, an ex parte decision of the arbitrator of the other party shall be in like manner binding on both the parties, but in default of my (our) nominating an arbitrator or arranging for the survey within a week after the nominating, I (we) shall lose my (our) right of all claims or arbitration.

15. All invoices and letters re: this indent will be considered as received by me (us) if properly entered in your peon's book to my address and impressions thereof taken in your copy book, though I may not have signed the peon's book and not taken delivery of the document under some wrong impressions.

16. It is distinctly understood that offers, if accepted by telegram, are subject to revision and confirmation by mail.

17. Unless otherwise stated below, it is undertood that orders sent by telegram have to be replied to by you within 8 days; and if sent by mail within 60 days from date of indent, after which period it shall be my (our) option either to cancel or extend the time for reply.

18. This contract is between you and me (us) as principal dealing with principal, and anything besides the plain signature written in vernacular shall be considered as null and void.

NOTE.—I (we) have signed this contract having full knowledge of its contents.

THE BROKER'S ORDER.

The list of "undermentioned goods" is filled out on a given form, and with this before him the broker places the order. For example, the broker forwards to Manchester or London an order for nainsooks, as follows:

AMRITSAR, *November 1, 1906.*

RECOMMENDATION OR INDENT NO. B. 234.

To Messrs. ——— ———,
——— ———.

From Messrs. ——— ———, Gholam Sadiq:

No. of packages—(10) ten only.
Quantity per package—(150) one hundred and fifty only.
Description—White nainsooks.

Price—At 3s. 8d. (3 shillings 8 pence) per piece. F. K. H. (free Karachi harbor), less return (commission) 3%.
Dimensions—28 inches × 20 yards.
Quality—No. 4032 (manufacturer's No.).
Colors—White.
Finish—As per original quality.
Patterns—Three with each invoice.
Heading—As per original quality.
Fold—19 inches wide x 48 inches long.
Ticketing—A good beautiful lady ticket.
Stamping—Our firm full name on each piece.
Numbering—255 (broker's No.) to be put on each piece.
Parcelling—Five pieces in a paper parcel.
Packing—Strong and careful.
Reply—By wire.
Shipment—In three equal monthly lots, commencing from January, 1907.

WHAT THE MANUFACTURERS HAVE TO RELY ON.

The Manchester firm, while dealing with the broker as principal, has before it a copy of the indenture of the local merchant to the broker, and therefore knows the precise terms of the transaction and the conditions which have to be met. In the event of objections or disputes for which a "survey" or appraisal is provided in the contract between the broker and the local merchant a similar course is taken between the shipper and the broker, the method varying a little in some cases, but following established usages. However, surveys are costly proceedings, and invariably involve loss, so that where disputes arise there is every inducement to reach a friendly settlement.

The indenture quoted above is made out for English trade, and has a few provisions relating to local conditions which might not be understood in the United States because of lack of familiarity with the Amritsar market. But its general purport as an illustration of methods will be easily apparent. The drafts and invoices would not apply, because brokers and dealers insist on ninety days for the United States on account of the much longer time required for shipments to be received.

PERSONAL REPRESENTATIVES NEEDED TO SELL GOODS.

A brief outline of the importance of Amritsar as a piece-goods market for a large area having been given, samples of prints forwarded, and trade methods described, the next thing for the mills in the United States which want to sell their products in India is to send their own representative, who can spend several months on the ground. I am assured that he would receive every encouragement, especially from the native brokers and dealers.

MARKET FOR CEMENT.

USED EXTENSIVELY FOR BUILDING AND OTHER PURPOSES.

Consul-General William H. Michael reports that a great deal of cement is used in India in building operations.

Portland cement is considered the best and is used for all particular work. It is used in laying brick walls in foundations, and wherever wood is used for structural purposes it is laid in cement whenever possible. Floors, moldings, cornices, and outside and inside trimmings are made of sand and cement. Wherever cement can be used to guard against vermin, especially white ants, it is freely used.

Houses that have flat roofs are covered with brick dust and particles of brick mixed with cement and stamped down hard. Pitched roofs are covered with corrugated iron or tile and then solidly covered with cement and sand. These roofs last well and require little repair. Artificial stone is extensively manufactured and used in India for building purposes and for pavements and walks. Floors are laid in cement and made ornamental by embedding broken glass and china in figures in the body of the cement. The outsides of temples are made in the same way and are very attractive.

Thus cement is in general use and always will be in India. The imports of cement as long ago as 1870 were valued at $50,342, advancing in the fiscal year 1900 to 729,478 hundredweight, valued at $500,332, and in 1906 to 1,778,428 hundredweight, valued at $1,070,275. The imports of cement for the first four months of the present calendar year were 574,006 hundredweight, valued at $333,427. The supplies of cement for India come mainly from the United States, the United Kingdom, Belgium, and Germany. Inferior cement is not wanted, but the best cement is in good demand at good prices.

HOW FLEAS ARE DESTROYED.

Consul-General Michael further reports that the Agricultural Research Institute of Bengal, has just concluded a series of scientific experiments to determine the method of destroying fleas.

A leaflet issued by the Imperial Entomologist says that the best manner of destroying fleas, with special reference to checking the ravages of plague is free use of crude-oil emulsion, which consists of 80 per cent of crude petroleum mixed with 20 per cent of whale-oil soap. This combination makes a jelly which mixes freely with water, and is generally used at 3 per cent solution. At 10 per cent it destroys fleas with perfect certainty. It is applied to the floors and walls of houses by any garden sprayer. An animal washed with the emulsion will be entirely relieved of the pests.

STRAITS SETTLEMENTS.

ADVICE FROM SINGAPORE.

INADEQUATE CATALOGUES—DISCOUNT SYSTEM REFORM—CREDITS.

In interviewing the trade at Singapore Consul-General D. F. Wilber finds that complaints are made by importers of American goods relative to the manner in which they are generally catalogued and the system of discounts employed by nearly all American manufacturers. Mr. Wilber writes:

In regard to the former, it is claimed that our export catalogues, with few exceptions, contain next to no information that will assist the importer thousands of miles away in figuring costs of goods delivered to him. For successful competition it is very important that importers be furnished catalogues with full information relative to the gross and net weight and the cubic measurement of all packages put up in the best and most economical quantities for minimum freight rates, and, in fact, all information which will assist in figuring the important item of freight.

English and continental discounts have a range from 5 per cent to 65 per cent, with an occasional 2 per cent extra. On machinery and like goods quotations run from net to 25 per cent less than list price. In comparison with American methods taken as a whole, all European and British lists approach nearer the actual net cost are infinitely more easily and simply figured, thereby saving much time, trouble, explanations and annoyance for the local dealer. All countries, except the United States, have either one straight single discount, with an occasional 2 per cent extra, as above stated, or quote net prices, allowing a commission for selling.

INTRICATE AMERICAN DISCOUNTS.

The long string of discounts offered by our manufacturers in many instances make list prices much higher than those of other countries, thereby creating a bad impression with the native or foreign buyer, are confusing, not understood, and ridiculous to them as compared with the single straight discount of British and European manufacturers. Why can not the American manufacturers do in this respect the same as others when bidding for foreign trade? Will they do it? In order to compare the simple single straight discount of, say 20 per cent, as offered by other countries, with the complicated methods of our manufactures, I have taken from discount sheets sent out by some of our manufacturers rates of discount offered covering six different instances, which are as follows:

List price, less 40, 10, 10, 7½, 7½, 5, 5, and 2 per cent.
List price, less 10, 10, 10, 10, 2½, and 2 per cent.
List price, less 50, 12½, 7½, 5, and 2 per cent.
List price, less 62½, 20, 5, 5, and 2 per cent.
List price, less 90, 50, 10, 5, and 2 per cent.
List price, less 80, 16⅔, 10, 5, and 2 per cent.

The above will show why complications, annoyance, and explanations result in dealing with people who never heard of such discounts and who are used to the more simple way.

Export catalogues giving full information relative to size or cubic measurements, gross and net weight of packages, price lists as low as practicable, with single straight discount, would do much to aid those who are endeavoring to sell American goods abroad. I have been requested to put this matter before the manufacturers at home who are making an effort to secure export business in this part of the world and whose methods have been contrary to the suggestions offered, and urge a reform movement on their part to try and comply as far as possible.

CREDITS IN VOGUE.

Textiles.—Trade in piece goods is done here on two and three months' credit, given by the Singapore importer to buyers from the time the latter take delivery, with a discount of 3 per cent. Changes in designs, chops, and packings of all standard lines must be met by the manufacturer when desired. Chinese requirements often seem trifling, but they must be met in every particular if business results. An American house here complains that in the above lines our manufacturers insist that their representatives make the buyer take what they manufacture, but the native will not buy that which he does not want, neither is he obliged to do so. If our country will not furnish it, others will, and he knows it.

Machinery, hardware, etc.—Some of these lines are sold by the importer for net cash price on three to five months' time from date of delivery to the local dealers, English houses giving three months, German and Belgium houses four and five months in order to win trade. In some other lines nine months' credit is given to native buyers in order to secure their business.

English and all continental manufacturers, the Germans especially, are much more liberal in granting time to the local importer than American manufacturers, thus enabling houses representing those countries to make greater concessions in way of credit to customers without the loss of interest on their capital. The American invariably demands cash in 30 days, or 2 per cent ten days, consequently the goods are paid for long before arriving here. By the time they are sold and the bill collected the importer may have lost nine months' interest and the use of the capital invested.

CHINA.

OPPORTUNITIES AT NANKIN.

PRACTICAL LINES FOR AMERICAN TRADE POINTED OUT.

According to a report from Consul Thornwell Haynes, the import of foreign goods at Nankin is rapidly increasing. He writes:

Large posters, circulars, painted signs, etc., are to be seen daily, written in Chinese and English, such as "Hotel and Foreign Goods Company," "Foreign Goods Store," "New Foreign Furniture Store," "Foreign Tailor and Ladies' Millinery," etc. Foreign goods on this market consist of yarn, cotton and woolen piece goods, copper ingots and slabs, cigars and cigarettes, coal, machinery, soap, matches, kerosene, household stores, sugar, and umbrellas. These are enumerated in the imperial customs trade returns. Not mentioned in these returns, but to be found in nearly all the shops dealing in foreign articles, are condensed milk, tinned butter, jellies, jams, pickles, wines, brandies, flour, all kinds of foreign foods, music boxes, graphophones, novelties of various kinds, lamps, blankets, foreign wearing apparel (except ready-made suits), tableware, furniture, clocks, watches, knives, carpets, and, in truth, all the necessities of life and many of its luxuries.

It should be borne in mind that no goods from abroad enter here direct, with possibly the exception of a few from Japan. All come through importing houses or firms in Shanghai. Samples, circulars, and letters in Chinese to dealers in Nankin might lead to orders from Shanghai, but hardly from America. This is true also of Chinkiang, Wuhu, Nganking, and all the Yangtze ports.

STREET CAR LINES AND ELECTRIC LIGHTING.

A great deal has been said concerning the introduction of modern city conveniences in Nankin. The matter has already been mentioned in a report from this office over a year ago, but further than some correspondence with American firms and a spasmodic interest nothing resulted. An electric line from the port landing to the native city, a distance of some 5 or more miles would, if properly managed, be an assured success financially. If the officials could by some means be

convinced of this there would be a splendid opportunity for the introduction of American street railway supplies. Perhaps the tramways at present being constructed in Shanghai will be the means of awakening the Chinese to a serious consideration of the innovation at Nankin. I believe that one familiar with the running of such lines would, in studying the situation here, quickly conclude that such a line as a private investment would be most profitable, provided a concession could be obtained. In this connection I quote from the latest report of the commissioner of customs at this port:

> The completion of the Shanghai-Nankin Railway is being anxiously awaited and great things are expected from its arrival. This will probably take place some time in 1907. According to the original plans the railway will not enter the city of Nankin itself, but is to have one station just outside the northeast city gate and another on the river bank between Hsia-kuan and the mouth of the Nankin cut-off. There is some talk of a tramway from the river station, which will pass through Hsia-kuan, follow the city wall on the outside, and end at the Han-hsi gate. The line would be principally for the conveyance of passengers to and from the railway station and river steamer landings, but it would not enter the city. While the Chinese are certainly progressing and changing in many ways they still stick to some old customs and observances which, to say the least, cause them much inconvenience. They seem to have an innate dread of permitting any new opening to be made in the city walls, and consequently neither railways nor trams can enter.

Electric lighting is another sore need of Nankin. At present the "maloo," the broad, principal avenue, crowded night and day with passengers, is lighted by diminutive lamps, with feeble lights some 200 yards or more apart. The imperial mint here possesses the only electric-light installation in the city. Shanghai has enjoyed electric lights for years, Chinkiang has recently put in a plant, and there is no doubt that gradually the innovation will slowly travel on up the river to Nankin, Wuhu (where the limits of the foreign settlement have recently been agreed upon), and Kiuking.

WATERWORKS PROSPECTS.

Several efforts have been made in Nankin to procure pure water. At the present time the best drinking water obtainable is the yellow, dirty water of the Yangtze, which is delivered in water carts at the residence. This is boiled or filtered, or both, and used for cooking and drinking purposes. Some few individuals have had wells sunk or bored to some depth below the surface water. An effort was made a few years ago to bore artesian wells in different parts of the city, and American machinery was brought out and looked after by an American superintendent, but, because of no previous geological examination, inadequate management, or for some other reason, the attempt was a complete failure. Last year the local authorities had under examination a plan by which it was proposed to pump water from the river into a reservoir at the top of one of the highest hills near the city, from which it was to be filtered into another reservoir one-fourth of the distance from the top, and again into another one-half the distance, whence there was ample pressure to distribute it through pipes all over the city. It was also proposed to establish all over the city at certain intervals fountains, where so much water could be obtained for a "cash." These suggestions were made by parties from Shanghai whom the viceroy called in consultation, but no definite action has as yet been taken. From present indications it seems the matter has been entirely given up. However, the new viceroy, who is to arrive in October, is a very progressive man and it may be that if

contracts are awarded and the work should be performed satisfactorily similar contracts may follow for water supply at Wuhu and Chinkiang.

LAMPS, OIL STOVES, ETC.

With the great increase in the importation of kerosene oil into China the utensils necessary for its consumption must also increase. For the last six years the imports of kerosene at Nankin were 45,410 gallons in 1900, 70,900 gallons in 1901, 122,580 gallons in 1902, 89,310 gallons in 1903, 23,900 gallons in 1904, and 216,200 gallons in 1905. The great falling off in 1904 was due to the Russo-Japanese war. The Chinese are learning that after a lamp is once bought the cost of oil for the same amount of light is very much less than that for candles. On the market are many small brass and tin lamps holding hardly half a teacup of oil, with diminutive wicks, shedding somewhat more light than a candle but at half the cost. Larger and more expensive lamps with Rochester burners and double wicks are also for sale. Most of the lamps with Rochester burners are marked "Made in Germany." Cheap and inartistic hanging lamps are also for sale. Most of the lamp chimneys sold are of German manufacture.

Of the more than 200 foreigners in this place a great many use oil stoves, principally for heating bathrooms. These are kept in stock by several native dealers and have been introduced in this market by the Standard Oil Company, not for the profit in the sale of the stoves, but evidently to increase the consumption of oil. The stoves are very good, and sell for from 50 to 100 per cent more than in America.

SEWING MACHINES—WAITING-ROOM FURNITURE.

One standard American sewing-machine company is finding China a profitable field. This company has headquarters in Shanghai and works the Yangtze Valley and other parts of the Empire through native agents. Many hand machines are sold, as also machines for shoe manufacturing. The installment plan of paying and free instruction in operating has done much to make this business successful. There is a great field for the introduction of a machine that is cheaper than the high-priced ones now on the market.

The several steamship companies should create at all the ports on the Yangtze some kind of waiting-room conveniences on their hulks. At present the half day which is often spent in waiting for steamers must be passed in walking or standing. When the Shanghai and Nankin Railway is finished, which will probably be next year, the steamship companies, if they care to keep their passenger traffic, can not longer completely ignore the traveler's comfort. It is astonishing how the patient public has so long suffered such treatment without strong protests, but there was no means of redress. The railway, at least as far as Nankin and Chinkiang are concerned, will somewhat alter matters. In view of the intense rivalry at present existing between the different steamship companies on the Yangtze and the near completion of the Shanghai and Nankin Railway, now might be the most opportune time to approach the companies.

STEAM ROAD ROLLERS, CANVAS, AND LUMBER.

Within the last few days three Americans have called at this consulate, and during the course of short conversations each has remarked, "What these people want is a steam roller for their streets." It is very true. Portions of the streets are always in course of repair and

filled with scattered stones for long distances. This annoyance to the traveler is caused by the slow process of rolling which is done by a large stone roller drawn by fifteen or twenty coolies. The crushing of rock is, of course, done by hand. The introduction of mechanical rock crushers is many generations distant.

The number of junks engaged in inland traffic in China runs into the millions. When it is remembered that each of these must carry a considerable number of yards of sail it will be seen that many thousands of dollars are annually spent in this direction. The material is mostly Chinese, but is not durable. American rope and sail makers might be able to introduce these articles through ship compradores in Shanghai, and if the market was once successfully entered there is no prophesying into what it might develop.

China is practically deforested, excepting certain parts of Fukien, Hunan, and Fengtien on the borders of Korea, along the banks of the Yalu, and is dependent upon Japan and the United States for her supply. All the timber recently used in the construction of one of the largest go-downs in Nankin was Oregon pine, and in building all the foreign houses in Nankin, as well as in the other ports on the Yangtze, all the lumber comes from abroad via Shanghai. Large lumber yards established in all the larger shipping centers would prove lucrative, especially if sawmills were a part of them, so that all desired measurements and kinds could be supplied on short notice.

DEALINGS WITH MERCHANTS.

CLOSER KNOWLEDGE NECESSARY—VALUE OF COOPERATIVE AGENCY.

For the continuation and progress of trade all over China, Consul Haynes thinks that America should look to her laurels. He says that it does not follow from the fact that the United States has had a large share that it will always be so, and he makes the following pertinent suggestions:

Generally suggestions made by American consuls are not followed. It has often been reiterated in the consular reports since their first publication: "American exporters should pack their goods better." Lately a physician in charge of one of the large Nankin hospitals told me that an X-ray machine he had ordered from America arrived so broken he had to have it overhauled at great expense, and that the machine never could be what it was when it left the manufactory. This physician was not an American, but he believed he could get a better machine from us. Now he prefers a complete inferior to an incomplete superior, and hereafter if he wishes an X-ray machine, a typewriter, bicycle, clock, or what not, it will not come from America, nor will the wants of his friends be supplied from there, so far as his influence goes.

My own experience since being in China has been limited to a lawn mower which arrived in such a broken condition as to be utterly useless. My pride in the superiority of things American caused me to hide it in a back shed. Thousands of instances all over the world could be mentioned like these. Another mistake to which attention has hundreds of times been called is the sending of advertising matter printed in English. What a Chinaman knows about a foot, an ounce, or a dollar is about as much as an American knows of a cha, a liang,

or a yuen. Every American mail brings to this consulate dozens of circulars, catalogues, etc., which are given as wide a publicity as possible by distribution, filing on the reading table, etc. It can not be said that no good results, but whatever does is certainly most limited. Think of the results if all this advertising matter were in Chinese. The Japanese not only have all theirs so but send agents who do not have to employ an interpreter and who can mix with the natives, eat their food, sleep in their houses, and in every way be of them. In Shanghai there is a school for the training of Japanese in the Chinese language. These students after a three years' course are employed by Japanese firms as their commercial representatives in China. They are fast covering the whole Empire. The Yangtze valley is full of them. What are American merchants doing to offset such work? Sending advertising matter printed in English and a few agents unacquainted with Chinese.

WHAT COMBINATION WOULD DO.

A large cooperative house in Shanghai, keeping in stock all lines of American goods, and from which native agents, paid by commission, could radiate all over China would seem to be the nearest approach to the solution of the question. The financial customs, the manner of banking, the system of credit, the tastes, necessities, markets of the Chinese would then be learned on the spot; orders filled immediately; tariff and freight on goods entering from America in bulk lessened; methods of rivals studied; in fact so many advantages would accrue that it would take some time to enumerate them all. Certainly the proportionate share of expense of thirty or forty manufacturers would be insignificant to the great gain attained. The only serious objection would seem to be that no two manufacturers of the same kind of goods would go into the concern, because of competition. Even if this objection could not be overcome, there are certainly more than enough manufacturers of totally different lines of goods in America, from needles to locomotives, to make such an undertaking succeed most wonderfully.

By this method it would not be long before American farm implements would be finding their way into China as at present they are doing in Europe, and the American manufacturer would be a benefactor in that instead of one blade of grass he made not two but thousands grow. The introduction of modern agricultural implements into China would do more to wake up the great majority of the class that needs waking up than any other thing. To such a house as this, if carried on as it should be, all Chinese investigating the possibilities of putting in city waterworks would apply, not to mention electric railway and light plants, gas works, telephone lines, road and bridge making, drainage, etc. For these things are coming in China, and they are coming soon. The question is, who is going to get the job?

Such a step as this will not seem feasible until somebody takes it in hand, until some manufacturer who is trying or wishing to introduce his wares in the East mentions it to some one likewise situated, or until some large export and import company, or some large catalogue compiler of manufacturers in the United States approaches all the manufacturers at once. It may be added that such an undertaking means not only the exploitation of China, but would be the means of easy access to all other eastern countries.

SHOE-SOLES MADE FROM CATALOGUES.

It would be most unfortunate if we are to be forever tied down to this unsystematized, spasmodic, hit-or-miss attempt to gain trade by sending over circulars which have utterly no meaning to a Chinaman. Somewhere recently I was reading of the great good a consul thought he was doing in distributing such circulars, etc. There seemed to be an incessant demand for them by the Chinese. "I would especially like those with thick leaves," remarked a Chinaman one day in calling for American trade catalogues. This, exciting the consul's curiosity, led to the discovery that they were wanted as inside soles for shoes! Why such a waste of time and money in playing so uncertain a trade game? Or, rather, it is a certain game—certain that other nations, principally Japan, will in a short time monopolize the whole business, and for his exports the American will have to look elsewhere.

One great advantage of such a house in Shanghai would be that the Chinaman could have ocular and tangible proof before buying. It is a proverb that he must always "look see" before purchasing. His cautiousness and economy is the reason of this. Whenever he can know from his own personal observation that a sewing machine will sew a yard of cloth while he is sewing an inch he will be disposed to buy. A circular might say it and pictures portray it, but they produce no impression upon him.

The great difficulty with the present system of representation by commission agents is that these almost invariably carry the same goods of other than American manufacture. Thus American trade is acquired not so much upon a basis of superiority as upon the fact whether or not the agent can get more out of it than he can out of some other. When he can not of course the American manufacturer suffers.

SHIPPING ON THE YANGTZE.

THE GREAT ARTERY CARRYING BULK OF CHINESE COMMERCE.

Consul Haynes, furthermore, says that most foreign enterprises in China are conducted under the terms of what are called "concessions," which are practically analogous to American public franchises. He adds:

But shipping on the Yangtze is not. It is a free-for-all concession, and at present there are many striving to get the largest share. It is no wonder. The Yangtze Valley is the commercial heart of China and comprises an area of 600,000 square miles, inhabited by approximately 180,000,000 industrious and peaceable people who do not hesitate to buy. The rivers of China are of the utmost importance to the Empire, inasmuch as they afford what is practically the only means of communication between the different territories. Roads are few and bad, the highway consisting in most instances of the merest track. The great rivers, however, with their numerous tributaries and canals, traverse the Empire in every direction and afford a cheap and ready means of transport, which has rendered the vast trade of the country possible.

The most important of the rivers of China are the Yangtse, the Hoangho, the Si, the Pei, and the Min. The Yangtse ranks third in size among the rivers of the world. It traverses the provinces of Sechuan, Yunnan, Hupeh, Anwei, and Kiangsu. Its total course cov-

ers more than 4,000 miles, and it is navigable by large vessels for more than 1,000 miles from its estuary. Its most important tributaries are the Kia-ling and Han. It also affords communication with two lakes of considerable extent. The most remarkable feature, perhaps, in connection with the Yangtse is its extraordinary variation in level, which alternates as much as 100 feet in the higher reaches, where the banks narrow and confine the stream within a series of remarkable gorges, and 50 feet at Hankow, where the river is more than a mile wide. These phenomena are due to the summer melting of the snows on the Tibetan plateau, where the river takes its rise at a height of more than 15,000 feet and the water rushes down in a flood which at times submerges the country for a breadth of 20 miles.

The most important adjunct to the rivers named was the Grand Canal, an undertaking completed more than six hundred years ago. This undertaking runs its course from Tientsin to Chinkiang, thence to Hangchow, crossing on its way both the Hoang-ho and the Yangtse. The total distance traversed is something over 600 miles. This wonderful engineering feat has lately fallen into a very bad state of affairs, and partly owing to the change in the course of the Yellow River, partly on account of the improvement effected in steam communication by sea, the canal is used only by small junks. The importance of the Yangtse, as well as all the other waterways in China, lies in the fact that the roads of the Empire are, as already stated, the worst in existence. Where paved they consist of blocks of stone imbedded loosely in the surface of the ground and which are frequently abstracted by the people for their own use, and in the hilly districts the tracks are utterly neglected.

SHIPS ON THE YANGTSE.

Five nationalities, the British, French, German, Chinese, and Japanese, represented by eight companies, are striving for the Yangtse River trade. The British are represented by two companies: The Indo-China Steam Navigation Company, whose agents in Shanghai are Jardine, Matheson & Co., and the China Navigation Company, whose agents are Butterfield & Swire. The Chinese company, the China Merchants' Steam Navigation company, have a pool with these two companies. A ticket bought on one line can be changed indiscriminately to either of the other two. Their receipts for cargo are said to be shared proportionally. Further, some assert that the capital in the China Merchants' Steam Navigation Company is composed mostly of British; others say it is entirely Chinese. Certain it is, capital invested must be in a Chinaman's name. The Indo-China Steam Navigation Company have four regular steamers, ranging from 1,544 tons to 2,389, the largest vessel being especially well equipped with electric fans and lights throughout.

The China Navigation Company have four steamers, ranging from 1,802 tons to 2,831. The French are represented by three sister ships, each of 1,727 tons, owned by the Compagnie Asiatique de Navigation. They are the most beautiful of any boats on the Yangtse. With each first-class cabin is a bathroom, and on each are two suites of rooms.

The Germans are represented by wo companies, the Hamburg-American and the North German-Lloyd. The former company runs two steamers, both of the same tonnage, 1,145. The North German-Lloyd has three steamers, all of the same size, 1,682 tons. The

China Merchants have five steamers, the largest 2,468 tons. The Osaka Shosen Kaisha has four vessels, the largest of which is of 1,758 tons. Another Japanese company, the Nippon Yusen Kaisha, has two, each of 1,140 tons, as well as three plying regularly between Hankow and Yokohama.

Altogether it will be seen that there are 27 vessels after the Yangtse trade between Hankow and Shanghai: British, 8; French, 3; German, 5; Chinese, 5; Japanese, 6. If to these are added the Japanese vessels in service between Japan and Hankow the total is 33, bringing the number of Japanese vessels to 12. Moreover in the service between Ichang and Hankow there are a number of vessels. Altogether, 18 British, 16 Japanese, 8 Chinese, 5 German, and 3 French steamers are in competition in the Yangtze service. But there are also a number of independent vessels which join in the competition from time to time. In consequence of this intense rivalry excessive rate cutting in the conveyance of passengers and cargo has been and is being indulged in to the discomfort of all the companies concerned.

Japanese advantages consist in proximity, cheap labor, quick transportation, knowledge of the country's customs, and in the confidence the Chinese have in Japan. They also take foreigners in first-class Chinese vessels. In vessels of other companies no intermingling is allowed. The labor employed on the vessels is cheap, efficient, diligent, and thrifty. This labor can not only rival the best operatives on other boats on the Yangtze, but can save money out of its meager pay. From such advantages it would seem that the Japanese must eventually win.

TRADE OF WUHU.

NEW FOREIGN SETTLEMENT—LEVIES FOR TWO RAILROADS.

Mr. Haynes also sends the following report on the trade of Wuhu, a Chinese city of 80,000 people, some 75 miles up the Yangtze River from Nankin:

The value of direct imports into Wuhu from foreign countries and Hongkong in 1905 aggregated nearly $300,000. Ten years ago the imports amounted to $2,400. During 1895 there entered $2,423,300 worth of merchandise from other Chinese ports, while in 1905 $4,500,000 worth were entered. Imports of American sheetings fell off from 21,985 pieces in 1904 to 880 pieces in 1905. This decrease is small, however, compared with English sheetings, which fell from 63,266 pieces in 1904 to 3,000 pieces in 1905. On the other hand, the imports of American kerosene rose from 1,971,670 gallons in 1904 to 2,503,920 gallons last year.

The importations of American drills remained normal, while English drills increased from 4,560 pieces in 1904 to 11,780 pieces in 1905. In 1903 England sent 5,750 pieces and America 29,980. The quantity of sugar imported increased from 6,544,266 pounds in 1896 to 14,397,067 pounds in 1905. Among the other imports were 2,924,144 pounds of cotton yarn, 2,045,930 fans, 8,480,140 bags, and 1,148,799 pounds of metals.

Wuhu's exports are the most important part of the port's trade movement, the value of which in 1905 was $13,700,000. Of this, rice was represented by $12,500,000, or 90 per cent. The other 10 per cent of the exports consisted mostly of silk, raw cotton, feathers, paper, maize, wheat, and beans. The Wuhu flour mill has done a

good business, and its product seems to find a ready market both inland and for export at prices which compare favorably with foreign flour. The so-called egg factory, lately foreign owned, has changed hands and is now the property of a well-known Chinese capitalist. Its products, albumen and yolk, are destined for use abroad.

The opening of the new general foreign settlement took place on May 16, 1906, and was attended by a large number of prominent officials. To provide funds for the proposed Anhwei Railway the gentry and merchants have agreed upon a voluntary levy upon exported rice. They also decided upon a similar levy for mining purposes within the province. These levies are in actual operation and are being collected at the newly established railway office. It has been decided that 17 acres, with a river front of 600 feet, shall be allotted to the railway company on the general foreign settlement, to allow the discharge of merchandise at the proposed pontoon wharves. The railway is destined to run as far as Kuangtechou, and will thus tap some important districts.

AMERICANS IN ORIENT.

DIRECT REPRESENTATION SECURES GOOD CAR ORDER.

Consul-General Amos P. Wilder, writing from Hongkong, says that a representative of the Wason Manufacturing Company of Springfield, Mass., while on a business trip through the Far East secured at Canton a contract for the first railway passenger cars to be used on the main line of the Canton-Hankow Railway.

This line is now in process of construction, although an enormous undertaking and one that will require many years for completion. The Canton-Hankow line when completed will connect with the Hankow-Peking line and give Peking direct communication with South China, a distance of over 1,400 miles. The Canton-Hankow line is in Chinese hands, the engineers even being natives brought from the north. It is expected that 12 miles of the line will be completed by December, connecting Canton with towns of importance, and the Wason cars will be used on these 12 miles when built, and farther north as the track is laid. Half of the full order of the 17 cars is to be delivered by April 1 next.

The traditional objections of the Chinese to an innovation of this sort have abated, and one hears little or nothing of the fears and alarms lest the graves of ancestors be disturbed. The Wason Company in securing this order for cars through their representative dealt directly with the president and director of the line, a Chinese gentleman. From Canton westward there is already a line of 28 miles of double track standard American gauge on which is rolling stock built by the Wason Company. This line is under the ownership of the three adjacent provinces, but managed by the same directors in charge of the new line. It is this branch of 28 miles which boasts obsolete engines of the elevated railway company of New York City.

The new line from Canton to Hankow, the "Chicago of the Chinese Empire," some 700 miles to the north, is being built by popular subscriptions exclusively among the Chinese. From Hongkong north toward Canton (90 miles away) the section within the British colony is being rapidly pushed by the English on modern lines, and it must be that this object lesson and the honest application of funds will impress the Chinese, who are suffering from a lack of confidence. There

has been a contest between representatives of car companies of different countries to get their cars in on this new line. The effect of this early order for cars is to practically standardize the roads of South China to the American type (corridor cars) as against compartment cars, in the making of which American companies can scarcely compete with Europeans.

ENGINEER EDUCATED IN AMERICA.

Vice-Consul-General P. S. Heintzleman, of Canton, sends a similar report, but states that the order was for 5 first-class, 5 second-class, and 10 third-class coaches, 2 baggage cars, and 20 dump cars. He also states that some of the material of this important trunk line will be manufactured in the Imperial Ironworks, at Han-Yang, opposite Hankow, and that Mr. Kwong Shun Mon, a Chinese engineer educated in America, and builder of the Peking-Kalagan and Peking-Tientsin railways, has been selected to superintend the construction of the Canton-Hankow line. The fact that the first contract for railway supplies on the trunk line calls for stock of American models would indicate that the American style will be used henceforth.

REGULATIONS AT DALNY.

HOW RESIDENCE IS PERMITTED—VESSEL RESTRICTIONS.

Consul J. E. Jones, of Dalny, supplies a copy of the regulations for the control of residents in the Kwantung Peninsula, which was recently reopened to foreign trade.

The most important provisions are contained in article 3, which lays down that "foreigners (excepting Chinese) shall be permitted until further notice to reside and lease or own real property only within the town limits of Tairen (Dalny) and Port Arthur," and article 5, which empowers the Chief of the Civil Administration Office concerned to prohibit the residence, for a period of more than one year, and not exceeding three years, of any resident deemed likely to injure public tranquillity or morals. The "supplementary rules" provide that "in regard to the residence and travel of Russian subjects rules hitherto obtained shall remain in force for the time being," and that "the regulations for the control of vessels sailing to and from Tairen and of residents in military district, the ordinances issued on September 7, 1905, are hereby rescinded."

NEW REGULATIONS FOR VESSELS.

By the new regulations vessels are not permitted o sail to and from any port with the exception of Tairen (Dalny). This does not apply to Chinese junks and steamers and sailing vessels navigating along the coast of Kwantung. Upon entering port the master of a ship must report to the authorities (1) kind of ship, (2) ship's name and signal code, (3) owner's name, (4) port of registry, (5) gross or registered tonnage, (6) fore and aft draft, (7) names of crew, (8) description, quantity, and value of the goods, (9) passengers' names, residence, status, calling, and age, (10) ports of departure and call and dates thereof, (11) when to sail, and destination, (12) accidents during voyage.

BRIGHT FUTURE PREDICTED FOR DALNY.

The Manchus are good farmers and there should be a first-class field here for farming implements of all kinds. Flour is a staple among

the Manchurians. They use it in the making of bread and macaroni. The fertile fields of the Sungari Valley will likely be planted in wheat this fall. This will, if successful, put a large supply of grain on the market and create a demand for milling machinery.

Cotton piece goods is another staple. Japan is after this market in earnest. She has increased nearly all her mills in Japan and is sending to Manchuria quantities of piece goods, already dyed and ready to make up. This it seems is what the Chinese want. The favorite colors are light and dark blue, and the Japanese, knowing the wants of the Chinese, are taking advantage of this knowledge to supply them direct.

Building material of all descriptions is in demand. There is ample time for the business men of the United States to capture a portion of this field. Spring opens early in March, and unless all signs fail there will be a great deal of building done in Dalny and Port Arthur.

The wealthy Chinese merchants predict for Dalny a great future. They say it will be the distributing point for all of Manchuria, provided, of course (and they lay great stress upon this fact), that the South Manchurian Railroad shall prove a success and lower its freight rates in competition with the junk transports on the Liao River at Niuchwang.

There is considerable talk of the establishment of a Chinese custom-house at Dalny during the coming winter. Of course this will be for goods intended for the Manchurian trade outside the leased territory.

PRESENCE OF JAPANESE.

RAPIDLY SETTLING IN THAT PART OF CHINA—CHEAP COAL.

A recent issue of Asiatic Commerce, of Tokyo, reports Baron Kiyoura, who recently returned to Japan from Manchuria, as making the following remarks:

Astonishingly large numbers of Japanese have emigrated to Manchuria, there being many Japanese colonies with more than 1,000 inhabitants. Women are everywhere. The Japanese are "feeding on each other," so to speak, and do not much engage in Chinese trade and local industries. Agriculture in Manchuria is in an advanced state. The land, several times as large as a Japanese farm, is cultivated by farmers numbering only 20 per cent of the number of the Japanese farmers. The deficit is made good by the abundance of cattle and horses and by the laborers from Shantung Province. Promising enterprises for the Japanese are mines, there being many mines in addition to the Fushun colliery. The Japanese coal merchants apprehend a falling off in the quotations of coal, owing to a competition with the merchants of Fushun. But such falling is beneficial for various industries. The cultivation of barley, the manufacture of flour, and the rearing of wild silkworms, each of these is a promising business. Commercial rivalry will be unavoidable between Tairen (Dalny), and Yingkow.

FOREIGN POPULATION.

JAPANESE RESIDENTS PREPONDERATE—CHINESE ABROAD.

The foreign population of China in 1906 is estimated by Consul-General Thomas Sammons, of Newchwang, at 46,000. This includes 6,454 at Hongkong (British territory), 1,432 at Tsingtau or Kiachow

(German), and 7,698 at Newchwang, but does not include the balance of Manchuria nor Mongolia. By figuring 20,000 to 30,000 Japanese, aside from railway guards, in southern Manchuria, and as many Russians in the north and Mongolia, the grand total would be over 100,000 foreigners. It is estimated that less than 8,000,000 Chinese are living outside of their native land, 75 per cent of whom are accounted for in Formosa, Siam, and the Malay Peninsula.

JAPAN.

SHIPPING PROGRESS.

EXTENSIVE BUILDING OF VESSELS—INCREASE IN SUBSIDIES.

Consul-General H. B. Miller, of Yokohama, makes a comprehensive review of the development of the Japanese shipbuilding trade, of which the following is a summary:

The war has given a great impetus to the shipbuilding and dockyard industry, which has made remarkable progress during the last few years. The principal shipbuilding yards are at Osaka, Kobe, and Nagasaki, and all three are full up with orders. The total area of the Osaka yards is about 40,000 tsubo (1,200 tsubo=1 acre), and about 4,000 men are employed. The Kobe yards have a factory area of over 60,000 tsubo and employ 8,000 workmen. The Nagasaki yards are the largest in the country, covering some 100,000 tsubo of land and employing over 10,000 men. These shipbuilding yards, however, find their capacity inadequate to meet growing requirements, and are steadily engaged in extending their works.

The factory arrangements have much improved. The building of torpedo destroyers is quite a new feature. Already one of these has been launched at Osaka, four at Kobe, and two from Nagasaki. The construction of gunboats for the Chinese Government is going on at Kobe, two of them having already been launched. The building of ships of over 10,000 tons in Japanese yards is now quite common. At Nagasaki a ship of 13,000 tons is being built for the Toyo Kisen Kaisha, in addition to a ship to take the place of the *Hitachi Maru*, which was destroyed by the Russians during the war.

GROWTH OF YARDS.

Work in the smaller yards has also greatly increased since the war. The small shipyards on both banks of the Kidzugwa have hitherto devoted their attention to the building of wooden vessels of 200 to 300 tons, but these are now able to build iron ships of 800 tons. The yards at Kayokijima, outside Nagasaki Harbor, which have hitherto been engaged in repairing work, are fast developing into a complete shipbuilding yard.

At Innoshima, Bingo, there are two dockyard companies, one of which possesses two docks measuring 300 feet and 364 feet, respectively, while the other has a dock 410 feet in length and is about to open another measuring 300 feet. At Nochi and Kinoe there are two shipbuilding yards, each possessing a dock 200 feet in length. Kinoe-maru has long been known as a center of wooden-ship building, and the launching of a ship of from 70 to 150 tons is an almost daily occurrence.

The largest dock in Japan is at Nagasaki, which measures 728 feet,

the next being at Yokohama, with a dock of 552 feet, the third largest at Hakodate, being 534 feet long. The floating dock owned by the Nagasaki company is 412 feet in length and is capable of floating a dead weight of 7,000 tons. Another and larger floating dock is now being built by the same company. The docking business, like the shipbuilding, is now in a very prosperous condition.

The technical knowledge of shipbuilding among the Japanese has also made progress, compared with eight or nine years ago, when the *Hitachi Maru*, 6,000 tons, was built. At that time the engineers and mechanics experienced difficulty in building the steamer, but now they are able to build larger vessels with greater ease and expedition. What is necessary in Japanese shipbuilding is the further subdivision of labor among the various departments of the industry. If this is done, shipbuilding can be executed with more dispatch. There is scarcely any doubt that with the development of the shipbuilding industry in Japan orders from foreign countries will increase.

SEEKING LEADERSHIP ON PACIFIC.

The Toyo Kisen Kaisha is vigorously at work building a new trade on its new line to Chile. It has chartered the *Kusuho Maru* (formerly the *Aryol*, 9,085 tons) from the naval department and also the *Kusado Maru* (formerly the *Kazan*, 6,070 tons), and, substituting these for the one vessel hitherto on the line, it will organize a regular monthly service between Hongkong and Chile via Japan ports.

The Nippon Yusan Kaisha is now in strong competition with foreign steamers on the Swatow-Bangkok line, the Shanghai line, the Australian line, and the Shanghai-Hankow line. The contest is growing intense and especially strong between the Japanese company and the great British firm of Butterfield & Swire.

It is clearly evident to a casual observer that the Japanese have a belief and faith in their power to become the masters in the coasting trade of this part of the world, and are perfecting their plans with this object in view. They are laying a foundation now, which surely will give them most excellent advantages to control the shipping between the United States and the Orient. Their first advantage lies in the economy of operation, due primarily to the cheap wages and good service of their seamen and officers and the abundance of well-trained and good seamen.

GOVERNMENT SUBSIDIES.

Subsidies are given by the Government on all ships constructed in Japan for the Japanese. The sum allotted in the budget for the current fiscal year under the heading of encouragement to shipbuilding is only $361,250 (which is exclusive of sums paid to existing steamship lines), and Tokyo papers say that it will prove quite insufficient. Speaking broadly, the rate paid for vessels built in Japanese dockyards and satisfying the required tests are $10 per ton for the hull and $5 per horsepower for the boilers. Fourteen vessels, totaling 55,488 tons, will come within the scope of the provisions, and the subsidy will amount to $1,150,000 or $1,200,000, so that there will be a deficiency of something over $750,000. The Government will probably pay it out of the reserves and embody it in a supplementary budget for the Diet's approval next session. The tonnage under construction amounts to 55,488 tons for the 14 vessels ordered.

In addition, the Nippon Yusen Kaisha have ordered six vessels of 8,500 tons each, and there are two ships building of 2,800 tons, which will not be eligible for bounty. Thus the total under construction is 22 vessels, aggregating 112,000 tons.

A subsidy is paid to mail steamers sailing not only to Europe, America, and Australia, but also to lines operating practically in a coasting trade in China, in connection with Japan. These steamers run on regular schedules to all of the important ports in China, going not only to Korea, Dalny, Chefoo, Newchwang, Tientsin, Tsingtau, Shanghai, and all southern ports, and to the Philippines, but they go 700 miles up the great river Yangtsze to that Chicago of China, Hankow.

At the close of 1903 Japan possessed 657,000 tons of steamers and 320,000 tons of sailing vessels. In 1905 the number of steamers was increased to 939,000 tons and that of sailing vessels to 336,000 tons, making a total of 1,275,000 tons. The vessels include 338 under 5 years, 331 from 5 to 10 years, 257 from 10 to 15 years, 181 from 15 to 20 years, and 131 up to 25 years, thus leaving only 148 over 25 years old.

MERCHANT MARINE.

INCREASE IN THE CHINESE TRADE—LIBERAL SUBSIDIES.

Consul Harry L. Paddock, of Amoy, brings to notice the growth in the influence of Japan upon the Chinese coastwise trade and shipping. He writes:

Amoy continues to lose the Formosan tea trade with the development by Japan of Keelung Harbor, and making that the tea port for Formosa. The ultimate object is to make Keelung Harbor accessible to large trans-Pacific steamers. Japanese direct lines are being operated from Keelung to Kobe and Nagasaki, and the decrease in the Amoy tea shipments from 17,812,666 pounds in 1902 to 12,304,495 pounds in 1905 shows how much these lines have affected local shippers. In Amoy's busy days three British steamer lines were operated between Formosa and Amoy, but the Japanese lines have driven them entirely out of the Formosan trade. The company accomplishing this is the Osaka Shosen Kaisha, which now operates 11 ships plying up and down the coast, calling at all the ports between Hongkong and Shanghai, and from Amoy to Tamsui and Keelung in Formosa. Douglas Lapraik & Co., which firm formerly had seven steamers, has curtailed its run from Hongkong to Fuchau, and is operating only three steamers. Butterfield & Swire still maintain an irregular service, but the major portion of its once enormous coast fleet is tied up in Hongkong or Shanghai.

This remarkable growth in Japanese owned and operated steamers is due largely to the subsidizing of Japanese steamers by the Japanese Government. This subsidizing enables the Japanese lines to maintain their service with low freight rates that can not be met by the British companies.

Japanese goods are being pushed and find a ready market, while the products of other nations, similar in character but better in quality, find no market. Japanese firms are gaining a foothold in the treaty ports, and the number of the Chinese that are becoming Japanese subjects is surprising. It might be well to mention that the Japanese consul

here has power to confer Japanese citizenship upon Chinese subjects. There are in the various treaty ports of China, according to the last Imperial Chinese customs report, 729 Japanese firms and 16,910 Japanese citizens. The next in rank are British firms to the number of 434, with 8,493 British citizens. The United States shows 105 firms and 3,380 citizens, and Germany 197 firms with 1,850 citizens.

SIBERIA.

VLADIVOSTOK OPPORTUNITIES.

AMERICAN ARTICLES THAT WILL SELL—TARIFF UNCERTAIN.

Consul R. S. Greene writes that the foreign trade of Vladivostok, which was practically suspended for eighteen months on account of the Russo-Japanese war and which opened again in 1905, is now in full operation.

Flour, of which large quantities have been sold in the past, has fallen to such a low price that there is little profit in its importation. It is significant to note that shipments of Manchurian flour are being made from Vladivostok to Chinese ports. American salt and canned beef have profited by the shortage of fresh meat, but Australian frozen meat is plentiful on the coast, and with the drain caused by the demands of the army diminished, the herds in the interior will be given a chance to increase. American oil was imported in sufficient quantities to supply the deficiency caused by the temporary check to the production of Russian oil. A protective duty will probably put a stop to the importation of American oil.

This country will need implements and machinery for agriculture and mines and flour and saw mills. American agricultural machinery has an excellent start in Siberia, but it seems the sawmills and flour mills use mostly German and other European machinery. American typewriters, sewing machines, scales, arms, and photographic apparatus are popular, and there is a splendid opening for the sale of shoes, rubber goods, leather, carriage tires, lamps, stoves, barbed wire, iron roofing, wagons, kitchen utensils, etc.

PROBABLE TARIFF CHANGES.

There is one feature that is discouraging for new enterprises, and that is the uncertainty of changes in the customs tariff. No official announcement of the Government's view of the question has been made. Local opinion is in favor of free trade, but the manufacturers of European Russia are said to be working hard to have the duties restored. While the customs duties will discourage imports from foreign countries, it appears impossible that Russia can supply the demand, and so long as the United States is on equal terms with other countries it should be able to extend its trade in many lines.

In regard to securing trade through catalogues and circulars, much can be done in this way, but the criticism has been made that many American catalogues are filled with too many fine pictures, and are not specific enough as to particulars which the merchants need. Every effort should be made to avoid the necessity of a letter of inquiry from the merchant with its consequent delay of nearly three months.

ASIA MINOR.

IMPORTS AND EXPORTS.

TRADE WITH UNITED STATES IS INCREASING.

Consul E. E. Young, of Harput, transmits the following report on the foreign trade of Asia Minor:

The commerce of this region continues in a depressed and stagnant state. Merchants report light sales and consequently are carrying but meager stocks. The general poverty of the people, occasioned by poor crops, etc., is largely responsible for this unsatisfactory commercial condition, while the restrictions placed upon the movements of the Armenian merchants is not a little responsible for the present status of the market. The large increase in military expenditures has proved a severe drain upon the vilayet, leading to a financial stringency. There is little actual currency in circulation, and merchants are obliged to extend credit or record few sales.

All phases of the silk industry are advancing rapidly. Samples of the silk eggs were procured and sent to the United States, where they are being tested to determine their value for breeding and other purposes. The yearly exportations of goat and sheep skins are steadily increasing. Many of the local exporters are desirous of entering into direct relations with American buyers, but find it difficult to do so, as they have to wait from four to six months for their money.

AMOUNT OF FOREIGN TRADE.

The imports into the vilayet of Diarbekr during the last six months of 1905 amounted to $930,430, and consisted of the following principal articles: Cotton yarns, valued at $73,050; calicoes, $170,450; hardware, $73,050; woolen goods, $85,235; cotton prints and flannels, $70,095; petroleum, $48,700; coffee, $17,035; and copper sheets, $14,610. The exports from Diarbekr during the six months amounted to $1,271,934. The principal articles were wool, valued at $171,750; copper, $97,330; goat and lamb skins, $48,700; mohair, $28,220; leather, $9,740; and gum, $7,333.

The imports into the vilayet of Mamouret-ul-Aziz for the six months ended December 31, 1905, were valued at $785,285. Among the articles of import were fezes to the value of $55,000; prints, $70,000; petroleum, $27,200; woolen goods, $63,500; yarn, $52,000; sugar, $17,400, and manufactures of iron, $20,140. The exports from this vilayet for the six months amounted to $449,740, the principal articles being goatskins, valued at $115,000; opium, $68,000; sausage casings, $20,080; leather, $13,000; silkworm eggs, $12,000; furs, $13,000; and cocoons, $14,000.

The amount of goods imported from the United States marks a satisfactory increase over the corresponding six months' period of 1904. This increase was noticeable in rubber overshoes, tools, and cotton goods. There is a growing demand for a great many American articles, such as the cheaper grades of watches and clocks, lamps, carriage and wagon springs, organs, stationery, etc. On account of the poverty of the people, automobiles, pianos, and kindred articles find no market in this region, while the importation of electrical goods and appliances of all kinds is prohibited by the Government.

AUSTRALASIA.

DEVELOPING ISLAND CONTINENT.

WESTERN AUSTRALIA.

RESOURCES OF THE COLONY—FOREIGN COMMERCE—RAILROADS AND THEIR MANAGEMENT.

Special Agent **Harry** R. Burrill furnishes an interesting report on the internal resources and foreign commerce of Western Australia, one of the largest States of the Australian Commonwealth. The extent and value of the commerce is shown in the statement that in 1891 the imports aggregated only $6,500,000, while in 1905 they were $35,000,000. The exports in 1891 were $4,000,000 and in 1905 approximately $50,000,000. Mr. Burrill's letter follows:

Western Australia is one of the largest States of the Commonwealth in area, containing approximately 1,000,000 square miles, a part of which is enormously rich in mineral deposits, while within its boundaries are fine grazing, farming, and timber lands, natural advantages which make it difficult satisfactorily to explain its population of only 270,000, in round numbers. Too much importance, however, should not be attached to these figures, for the growth of the State during the earlier years of its settlement was exceedingly slow, and it was not until 1885, when gold was discovered in what was known as the Kimberly district, that a steady increase was observable. Subsequent rich mineral discoveries, the opening up of other great natural industries of this State, and the development of general trade and public work consequent upon these discoveries, have lead to a wholesome, if comparatively small, annual increase in the population, so that now prosperity in Western Australia is an established fact and its inhabitants are of the intelligent, energetic, and ambitious type, calculated further to promote it.

EXPANSION OF TRADE.

Keeping pace with the development of the natural resources of the State has been the expansion of trade in all classes of commodities, and in this expansion the United States has participated to an enviable extent. How much she may benefit in the future through her commerce with this thriving community depends largely, as has been pointed out in reports previously submitted, on the attitude of the American manufacturers. In 1891 the imports amounted, in round numbers, to $6,500,000, while in 1905 they were valued at approximately $35,000,000. The exports of the State show an increase of from $4,000,000, in round numbers, in 1891 to approximately $50,000,000 in

1905. The principal articles of import in 1905, together with their estimated value, in round numbers, are herewith appended:

Articles.	Value.	Articles.	Value.
Ale, porter, etc.	$400,000	Jewelry	$275,000
Wearing apparel	1,500,000	Lamps and lampware	70,000
Arms and ammunition	1,250,000	Leather	300,000
Beltings	150,000	Machines and machinery	2,250,000
Boots and shoes	750,000	Machine tools	50,000
Cement	150,000	Metals, manufactures of	2,000,000
Clocks	60,000	Oil, kerosene and lubricating	400,000
Cordage and twine, including sewing silks, twists, etc.	400,000	Paints and colors	125,000
Drugs and chemicals	1,000,000	Paper	450,000
Electrical materials	275,000	Cotton and linen piece goods	900,000
Dried fruits	100,000	Silk goods	250,000
Preserved fruits	200,000	Velvets, plushes, etc.	275,000
Furniture	200,000	Woollens	650,000
Hats (men and women's)	350,000	Flannels	50,000
Agricultural machinery	350,000	Flannelettes	75,000
India rubber or other hose	200,000	Rails, fish-plates, switches, points, etc.	350,000
		Soap	150,000
Iron and steel:		Stationery	250,000
Bar, rod, angle, tee	250,000	Sugar, glucose, sirups, molasses, etc.	1,250,000
Galvanized, plate and sheet	1,000,000	Timber (dressed and undressed), doors, laths, etc.	800,000
Girders, beams, etc.	90,000	Tobacco (manufactured)	500,000
Hoop	10,000	Cigars	100,000
Plate and sheet (except galvanized)	70,000	Cigarettes	200,000
Scrap	15,000	Tools of trade, not machines	300,000
		Vehicles, including bicycles, cycle parts, carriages, wagons, and motors	800,000
Total	1,435,000	Watches	75,000
Jams and jellies	325,000		

An examination of these classifications and the estimated value of the articles imported will enable American manufacturers to form a comparatively accurate idea of the extent of the trade and to determine whether the present or prospective importance of the market will justify greater efforts to secure a larger representation of goods manufactured in the United States.

PRINCIPAL COUNTRIES OF SUPPLY.

As the goods imported are brought principally from Great Britain, the United States, Germany, and the other States of the Commonwealth of Australia, the proportion of the trade enjoyed by each may be of interest to American manufacturers. The following table represents a fairly accurate estimate of the value of exports from the Commonwealth of Australia, United Kingdom, Germany, and the United States to Western Australia for the year 1905.

Commodities.	Commonwealth.	United Kingdom.	Germany.	United States.
Ales, porters, etc.	$25,000	$300,000	$75,000	.....
Wearing apparel	700,000	300,000	75,000	$10,000
Arms and ammunition	25,000	750,000	350,000	75,000
Belting	30,000	70,000	40,000	500
Boots and shoes	475,000	175,000	10,000	75,000
Cement	5,000	65,000	75,000	1,000
Clocks	1,000	15,000	5,000	30,000
Cordage and twine	90,000	250,000	10,000	25,000
Drugs and chemicals	15,000	850,000	125,000	5,000
Electrical material	3,500	175,000	60,000	20,000
Dried fruits	40,000	5,000	1,000	7,500
Preserved fruits	140,000	15,000	1,500	7,000
Furniture	60,000	55,000	45,000	35,000
Hats (men and women's)	60,000	275,000	5,000	5,000
Agricultural machinery	160,000	60,000	.....	130,000
India rubber or other hose	40,000	100,000	15,000	40,000
Iron and steel	15,000	1,300,000	65,000	55,000

Commodities.	Commonwealth.	United Kingdom.	Germany.	United States.
Jams and jellies	$800,000	$12,000	.....	.....
Jewelry	70,000	130,000	$50,000	$15,000
Lamps and lampware	5,000	30,000	10,000	25,000
Leather	175,000	60,000	5,000	30,000
Machines and machinery	380,000	1,080,000	290,000	415,000
Machine tools	8,000	15,000	.....	25,000
Metals (manufactures of)	230,000	1,000,000	275,000	265,000
Oil (kerosene and lubricating)	8,000	25,000	.....	325,000
Paints and colors	5,000	75,000	10,000	25,000
Paper	10,000	175,000	50,000	165,000
Piece goods (cotton and linen)	.....	800,000	20,000	15,000
Silk goods	.....	110,000	5,000	5,000
Velvets, plushes, etc	.....	210,000	10,000	.....
Woollens	15,000	575,000	15,000	.....
Flannels	30,000	15,000	1,000	.....
Flannelettes	.....	60,000	3,000	.....
Rails, fish plates, points, switches, etc	10,000	200,000	100,000	15,000
Soap	80,000	30,000	.....	30,000
Stationery	90,000	125,000	12,000	12,000
Sugars, sirups, molasses, glucose, etc	840,000	10,000	.....	5,000
Timber (dressed and undressed), doors, laths, etc	35,000	8,000	.....	400,000
Tobacco (manufactured)	300,000	20,000	.....	150,000
Cigars	10,000	2,000	10,000	2,000
Cigarettes	65,000	8,000	.....	90,000
Tools of trade (not machines)	15,000	140,000	20,000	125,000
Vehicles, including bicycles, cycle parts, carriages, wagons, and motors	75,000	615,000	5,000	60,000
Watches	.....	50,000	4,000	15,000

Since 1899 the exports have exceeded the imports by a comfortable margin, and all indications now point to a continuance of these desirable conditions. Gold forms the principal article of export, the value of raw gold for 1905 amounting to approximately $13,500,000. The estimated value of wool exported in 1905 was, in round numbers, $1,300,000; timber, $3,000,000; hides and skins, $500,000; pearls and shells, $1,400,000; sandalwood, $115,000; copper (ingot, ore, or matte), $300,000; all other articles, $2,000,000. The figures for tin are not yet available, but the total value of exports, exclusive of tin (which may be roughly estimated at $225,000), amounts to approximately $50,000,000.

TIMBER INDUSTRY.

The timber industry is still in its infancy, but from the latest and most accurate figures obtainable showing its production enough can be learned to gauge its importance and value as a national asset and the steady rate of its development. The demand for Western Australian hard woods for railway sleepers, street paving blocks, piles for wharfs and piers, jetties, bridges, etc., is increasing, both in the commonwealth and for export. The United Kingdom is the chief buyer of these woods outside of the Australian States, but a fairly large quantity finds its way into foreign countries.

The principal hard-wood timber trees of the Western Australian forests are called "jarrah" and "kauri," but of these the jarrah is regarded as greatly superior for general construction purposes. A recent Government estimate gives 8,000,000 acres of jarrah forest and 1,200,000 acres of kauri forest, and the latest published records of the Western Australian Land Department indicate an acreage of only 904,260 of forest land under timber leases and licenses. These figures show the great expansion possible for this industry under intelligently directed effort and its increasing importance as a source of State wealth. A fair specimen of a jarrah tree would run about 90 to 100 feet in height, and from 2½ to 3½ feet in diameter at the base.

The weight of the jarrah wood when newly cut is a little over 70 pounds per cubic foot, which is reduced to 60 pounds when thoroughly seasoned. It is red in color, polishes well, is easily worked, and it makes the best charcoal of any timber in the State. No foreign hard wood can hope to compete with it in this market, but what could be done with it in foreign markets through live, up-to-date, American export methods is a subject for interesting speculation, and one which on investigation might prove worthy of a trial.

The timber business is practically controlled by one corporation formed by a combination of eight originally separate companies, and, while it may not be described as a trust, for that word is particularly objectionable in Australia, its methods of doing business are regarded here as not entirely dissimilar to those of other industries bearing that unpopular label. While there are a few independent timber companies engaged in the business, it is fair to assume, according to the business men of Western Australia, that their enterprises are carried on by permission of, rather than in competition with, the corporation to which reference has been made.

GOVERNMENT CONTROL OF RAILROADS.

The railroads are under Government control, as is the case with all the railways of the commonwealth. The advantages or disadvantages of such ownership will be more fully discussed in a future report, after the various States have been visited and an investigation has been made of the operation of the system throughout Australia.

Although Western Australia's railway history begins at a date considerably later than that of any of the eastern States of the commonwealth, it is, according to a competent authority, as regards rapidity of construction and growth of traffic, unique in comparison with other systems. As distinguished from previous conditions, when the requirements and agricultural products of the older settlements formed the staple source of railway revenue, this more particularly applies to the last decade when the wonderful gold discoveries in new districts rapidly developed a large and profitable business. The first railway line of the colony connecting Geraldton with the copper-mining district of Northampton was opened in 1879, and since then nearly 2,000 miles of rail have been laid. The standard gauge is 3 feet 6 inches.

ADMINISTRATIVE METHODS.

The administration of all Government railways open for traffic is in the hands of the Commissioner of Railways. Under a parliamentary enactment of 1904 his responsibilities and powers were fully defined, and the practical operation of the department was removed as far as possible from the control of politicians. For the purposes of ordinary organization and operation the department is divided into four divisions, namely, the administration or general, the traffic, the locomotive, and the ways and works, the heads of which are practical railroad men and regarded as well equipped for the positions. The average number of men permanently employed is 6,000.

The capital expended on the lines now open amounts to approximately $50,000,000, and the percentage of profit on their operation is between 4.6 and 5 per cent on the money invested. Accidents are infrequent and have rarely resulted in loss of life. The telegraph and

telephone systems are also owned by the government, and have steadily grown in size and efficiency since their establishment. In Western Australia there are now approximately 175 telegraph stations and 10,000 miles of wire. In connection with the telephone exchange over 6,000 miles of wire are in operation, while the railway telephone lines operate nearly 8,000 miles of wire.

EXECUTIVE AUTHORITY AND POWER.

Under the constitution of Western Australia the executive power is invested in the governor, who is appointed by the Crown, and who acts under the advice of a cabinet. The officers of the cabinet are the minister for lands, colonial treasurer, minister for agriculture, minister for mines and railways, minister for commerce and labor, minister for works, attorney-general, and colonial secretary. The premier, who forms the ministry, selects his own portfolio. Parliament is composed of a legislative council, resembling the senate of an American State legislature, and a legislative assembly, whose powers are similar to those of the lower house. Members of the State cabinet receive $5,000 a year, and members of the State parliament are paid $1,000 a year.

The legislative council consists of 30 members, and the legislative assembly of 50 members. The cities of Western Australia are governed by a mayor, councilors, and town officers.

FERTILIZERS IN DEMAND.

WIDE MARKET FOR PROPERLY PREPARED COMMODITY—OPPORTUNITY FOR AMERICAN PRODUCERS.

Special Agent Burrill also furnishes the following report on the quality of fertilizers used in South Australia, the extent to which they are employed, and the sources of supply. It is pointed out that if American manufacturers can supply fertilizers equal in quality to those imported from Great Britain and produced by local manufacturers, and at prices a trifle lower, a foothold would be secured with reasonable certainty of a permanent market. Writing from Adelaide, Mr. Burrill reports:

South Australia obtains such excellent results from the application of fertilizers to its farming lands that their use, in increasing proportions annually, is assured. In this commodity the manufacturers of England and Australia control the market, for the reason that the cost to the consumer is less than has been quoted from any other sources. By this it is not meant to convey the idea that the quality of the fertilizers so popular on the market is deficient in any essential particular, but rather to raise the question whether the United States can not enter into successful competition.

This State obtains profitable returns from using what in other countries would be regarded as an absurdly small quantity of fertilizer. The soil is evidently greedy for such artificial stimulant, for by the use of 75 to 112 pounds of phosphate to the acre crops are doubled, and instances are frequently reported where far better results have been obtained. Inasmuch as it is the policy of the government of South Australia to assist the farmers, not only in acquiring land, but in the

development of a market for their products, it can be readily seen that agriculture is one of the steadily growing industries of the State and that anything calculated to promote it will enjoy a corresponding benefit.

FERTILIZER MOST SUITABLE.

The fertilizers used here depend principally on the condition of the land and the sufficiency of nitrogen, phosphoric acid, and potash. Many clay soils contain an abundant supply of potash, and most soils, freely treated with manure, need no direct application of potash. Nitrogen, however, must frequently be applied in a direct form, for which purpose nitrate of soda is found to be generally suitable and not too expensive for the progressive farmer. Important as are these elements, phosphoric acid demands even greater attention than either or possibly than both combined, because the activity and productiveness of nitrogen and nitrate of soda depend largely upon their being in the soil together with an adequate supply of phosphoric acid.

The method employed here is to drill the superphosphates in with the seed. This is done in dry weather (with which Australia is somewhat afflicted), but with the rainfall the plant flourishes far more satisfactorily, develops qúicker, and is much stronger than without the use of these stimulants. The American, Canadian, and Australian drills are used, with the preference about in the order named. When the rainfall is ample, compound phosphate of lime is used in the form of phosphate powder, which contains between 12 and 20 per cent on phosphoric acid, costing the consumer approximately $17.50 a ton. In farming lands where the rainfall is slight it is necessary to break the cohesion of the phosphate of lime by sulphuric acid treatment, which renders the fertilizer soluble in water or soil. When it has passed through this treatment it is called superphosphate, and costs the consumer about $20 a ton.

COST A CONTROLLING FACTOR.

It is estimated that fully 60,000 tons of superphosphates were used in South Australia last year, and the demand is constantly increasing. Land, for which it was difficult to obtain $7.50 an acre before superphosphate was applied, is now held at $30 an acre and is worth every penny of it, because of the greatly increased productivity of the soil. These farming lands were among the poorest to be found in the State, and their appreciation in value is sufficient guaranty of the necessity for fertilizers and the possibilities existing in the soil when properly treated.

The agriculturalists of South Australia are observing, discriminating, and practical, and the best fertilizer for their ground will appeal to them irrespective of where it may be manufactured. It is apparent, however, that the cost to them must not exceed the quotations made by representatives of English manufacturers and those of this State. These prices are now and have been for three years practically identical. What would result if an American made fertilizer, equal in quality or superior to those referred to, could be laid down at Port Adelaide at a cost less than that now paid? In this particular instance there is no desire to patronize home industries, simply because they are home industries, or to buy from England because she is the mother country. It is a question of dollars and cents and the greatest amount of good to be procured from their expenditure.

BRITISH AND LOCAL PRODUCTIONS.

The superphosphates shipped out from England are in two hundredweight bags (cwt. 112 pounds), 10 bags to the ton, and have a guaranteed analysis of 37 to 39 per cent phosphate, soluble in water. It is generally understood that the essential value of superphosphate is the water soluble phosphates and not the total phosphates contained in the fertilizer. The importers of the English brand assure full weight and agree to rebag and fill all broken packages up to their original weight. The South Australian manufacturers, in quoting the same prices, have the advantage of manufacturing on the spot and doing away with freight charges. They sell the mineral super at $20 a ton; the guano super, $20 a ton; the South Australian super, $17.50 a ton; wheat manure, $25 a ton; barley manure, $25 a ton; bone super, $27.50; bone dust, $27.50; potato manure, $30 a ton; nitrate of soda, $70 a ton; sulphate of ammonia, $72.50; potash, $70 a ton. When delivery in hundredweight bags is required the South Australian manufacturers charge 62 cents extra, and in quantities of less than 1 ton, $1.25 per ton extra. Their terms are net cash on delivery.

OPENING FOR AMERICAN MANUFACTURERS.

The importers are at a loss to understand why no quotations on superphosphates have been received from the United States. It must be understood that while this lucrative business remains where it is now, in the hands of the Australian manufacturers and importers handling English goods, inquiries will be so infrequent as to create the belief in the United States that no market exists here. This mistake can not be too speedily rectified. Business men of Adelaide and other cities of South Australia are confident that if the freight rates are not prohibitive, an American fertilizer, comparing favorably in quality and price with the English and Australian makes, would appeal to the farmers, and a market of constantly increasing proportions could be established.

In view of the rapidly expanding market here for fertilizers, there can be no doubt of the advisability of a careful investigation of the conditions by an expert deputized to do that work by an American manufacturer. From all that can be learned, from those interested in this business in South Australia, there is no sound reason why the United States should not be well represented on the market.

TRADE IN VEHICLES.

STYLES IN GENERAL USE—HOW AMERICANS LOST THE MARKET.

Mr. Burrill, writing from Adelaide, South Australia, furnishes descriptions of the several vehicles most in use in that State of the Commonwealth, and facts that explain the loss of the market by American manufacturers. Mr. Burrill also furnishes information that will interest manufacturers of automobiles. His report follows:

American manufacturers frequently write to the importers of this State inquiring why the trade in buggies and other vehicles made in the United States has decreased in South Australia to such a marked degree, and asking that suggestions looking to its reestablishment be made. The difficulty, according to the business men of Adelaide, the capital and chief city in commercial importance of South Australia,

arises from a lack of confidence among the consumers, that apparently prevails to a discouraging extent, in the durability, strength, and adaptability to climatic conditions of the American-made vehicle. South Australia demands a vehicle that will stand constant hard usage for several years, and any that can not meet this requirement is condemned. The cost of the article is evidently a secondary consideration, for buggies, traps, phaetons, carts, sulkies, runabouts, and heavier carriages of all descriptions popular on the market command large prices as compared with the figures quoted on American goods.

MISTAKES OF AMERICAN MANUFACTURERS.

Buggies manufactured in the United States have been exported to South Australia in fairly large quantities, and because of their attractive design and appearance attained considerable popularity. It was not long, however, before the absence of proper seasoning became apparent through their lack of durability and inability generally to stand up under the conditions prevailing here. This struck a blow to the trade in American vehicles from which it has never recovered. It is evident, from the experiences of the South Australian importers, that a vital mistake was made at the beginning in exporting to this market from the United States cheap, lightly constructed, unseasoned vehicles, unsuited to the extreme dry heat of this climate, which prevails for four or five months of the year, and defective in other important particulars. Whether the trade in American vehicles, imported in a finished condition from the home factories, can ever be restored to a paying basis is problematical, but it is safe to assume that a careful investigation by an expert of the requirements of the market would disclose the necessity for a radical change in the style of goods designed for the South Australian trade if any attempt were to be made to accomplish it.

With such alterations in the construction of an American-made vehicle as would appeal to a practical man examining the field with a view to again becoming a factor in the market, it would not, under ordinary circumstances, appear to be difficult to secure a foothold; but the conditions now obtaining are such as somewhat to discourage efforts in this direction. The first, and perhaps the greatest, obstacle is the strong prejudice against any vehicle manufactured in and exported from the United States. In the second place the demands of the South Australian trade have resulted in the establishment of several carriage factories, more or less extensive, and fairly well equipped to turn out acceptable work. These factories guarantee their output for at least one year, which guaranty carries no risk, for, profiting by the failure of cheaply made, lightly constructed vehicles to retain their hold on the market, the South Australian manufacturers, using the material best suited for this climate, build a heavy, durable article, and charge therefor a price sufficiently high to insure a reasonable profit. These vehicles are built to stand rough usage without breaking down, and because of their strength meet the requirements of the trade.

USE OF AMERICAN MATERIALS.

One other feature, as peculiar as it is universal here, is noticeable in every carriage factory of any size in this State. The vehicles turned out are called "Australian-made vehicles," and this is true so

far as the assembling of the parts is concerned. Careful inquiries, however, elicited the information that, in practically every carriage constructed American material is largely used. The wheels, tires, metal work, springs, and various other essential parts are imported from the United States, put together here, with the woodwork properly seasoned, and the finished article is exhibited in the showroom, or sold as a vehicle of Australian manufacture. There is, however, one part of a buggy that an Australian declines to buy in the United States, and that is the hood. The reason assigned is the worthlessness of the material used, for, according to the dealers of Adelaide, the hood, or the top as it is more commonly known, will lose its color within six months.

The practice of the South Australian carriage builders of importing American parts and manufacturing therefrom Australian vehicles is firmly established, and, while it would unquestionably prove an obstacle in the way of building up or rehabilitating an export market for the finished article, it certainly can not be regarded as working a hardship on other American industries. It is undoubtedly a difficult task to find sale here for a finished buggy manufactured in the United States, but the demand is large and apparently increasing for every part used in its construction, and practically all of them are of American make.

VEHICLES THAT ARE POPULAR.

The most popular vehicles on the market are sulkies, phaetons, buggies, traps, and wagonettes, and it may interest American manufacturers to know the retail prices charged for vehicles of this description.

Straight-shaft sulky: A runabout with long-distance axles, silver-plated ironwork, well finished, light, and roomy, easy riding and strong. Price, $75 and upward, with ordinary tires. Rubber tires, $25 extra; brake, $7.50 extra.

Phaeton sulky: Suitable for women; fitted with rubber tires, long-distance axles, hung on three springs, double steps. Price, $75. Lever hood, $30 extra; brake, $7.50 extra.

Curved-panel cart: Popular as a family vehicle; two wheels, adjustable shaft, hung on three springs, sliding seat, lamps, brake, silver-plated mountings, trimmings to suit. Price, $175 and upward. Rubber tires, $37.50 extra.

Road wagon: Will seat four when open and two when the back seat is lifted, equipped with lamps, brake, boot to cover back, back springs, shaft, etc. Price, $140. With lever hood, $30 extra.

Express wagon: Will seat four back to back; made in natural wood, varnished or painted, shafts, lamps, brake, back spring, steel axles and tires, any style of wheel, plated mountings, etc. Price, $140 and upward. Cover or hood, $25 extra.

Pony express wagon: A modification of the express wagon, seating four with both seats open, solid or open sides, finished in natural wood or painted, lamps, brake, back springs, equalizing bars and shafts, plated mountings, any style of wheel. Price, $125.

Pony mail phaeton: Compact family vehicle, seating four, English forecarriage, lever brake, long-distance axles, leather trimmings, lamps, pole, and shafts. Price, $250. Rubber tires, $65 extra.

Village phaeton: A roomy family trap, seating four comfortably,

nickel mountings, lamps, brake, shafts, trimmings to suit, etc. Price, $175 and upward.

Rosa buggy: Fashioned after the 4-wheel dogcart pattern, with curved panels, long-handled brake with adjustable foot, reversible seat, nickled mountings, hung on three Concord springs, wheels (Sarven pattern or wood hub), shafts, lamps, etc.; very popular. Price, $150 and upward. Hood, $25 extra.

Four-wheeled dogcart: With best steel forged English forecarriage lever brake, leather upholstery, silver-plated rails and dash, lamps, pole, and shaft manufactured in only one grade. Price, $250. Rubber tires, $65 extra.

Side bar buggy with hood, hung on Brewster gear, handsomely finished, fully equipped with lamps, brake, shafts, and all other necessary appliances. Price, $187.50. Rubber tires, $45 extra.

Pony Abbot buggy: Finished in natural wood, varnished or painted, body constructed in "Abbott" style, side springs, steel cross stays, built for horse or pony. Price, $150 and upward. Rubber tires, $40 extra.

Side-spring buggy: Built to suit either horse or pony, side springs, steel cross stays, nickeled mountings, lever hood, lamps, brake, shafts, etc. Price, $125 and upward. Rubber tires, $40 extra for pony size and $45 extra for horse size.

Physicians' phaeton: Mounted on three elliptic springs, silver-plated mountings, leather upholsterings, lever hood, brake, etc. Price, $275. Rubber tires, $65 extra.

Wagonette with hood: Used almost exclusively when a family vehicle capable of carrying four or more persons with a driver and footman is required. It takes the place of the brougham or landau used in the United States. It is also used here extensively for sight-seeing purposes, and is always to be found on public cab stands or at livery stables. The seats behind run lengthwise of the box and carry four comfortably. They are fitted either with an ordinary hood or a patent folding top which folds behind the driver's seat, and are equipped with the best running gear and other necessary appliances possible to obtain from American or British manufacturers. Price, $500 and upward. Rubber tires, $75 extra.

[Illustrations of the vehicles above described are inclosed and may be seen on application to the Bureau of Manufactures.]

CUSTOMS DUTY AND OTHER CHARGES.

The customs duty on vehicles or parts thereof, is 25 per cent ad valorem. Landing charges, wharfage, drayage, with other incidental expenses, would probably amount to an additional 5 per cent. Whether the freight rates on parts of vehicles imported from the United States be lower or higher than on those sent out from England is immaterial, for in order properly to construct a real, bona fide Australian wagon, American parts must be had regardless of cost. An American make-up for a South Australian wagon is quite as indispensable as a suitable foundation for a modern sky scraper, for the absence of either would inevitably result in a collapse of the finished article.

AMERICAN AUTOS DISCARDED.

Like Western Australia, South Australia has practically discarded the American automobile and for the same reasons. Poor material,

cheap construction, and the constantly recurring necessity for repairs have all contributed to the downfall of a business which had been well established and which promised a most prosperous future. At the time of their introduction and until the inferior quality of the machines became apparent, automobiles manufactured in the United States commanded a ready and steadily increasing sale. On the streets of Adelaide and other cities of this State American cars were everywhere to be seen to the practical exclusion of the manufactures of either France or England, but when the awakening came the prospects of a permanent market were shattered. The opportunity was eagerly seized by the French manufacturers, and their representatives here began placing cars built to suit the trade in every essential particular. They of course knew the causes which depopularized and drove from the market the American machine and quite properly took advantage of that knowledge. The result is that to-day automobiles of French make are in absolute control of the trade in South Australia. All inquiries for new cars are, according to the dealers here, made for French models and the purchasers are not alone those who are acquiring an automobile for the first time, but may be found among the owners of American cars who are anxious to discard machines with which they are dissatisfied and who are financially able to indulge themselves to that extent.

REMEDIES SUGGESTED—GOOD ROADS.

As the difficulties with which the South Australian importers of American automobiles have to contend are practically the same as were found in the State of Western Australia, attention is directed to a preliminary report on this branch of the export trade of the United States, written at Perth, and published in Daily Reports for October 22, 1906. Remedies were suggested which apply quite as forcibly to the conditions prevailing here, and it is only through a radical change in the quality, strength, and durability of the American cars exported to this State that there can be any hope of their reestablishment on this market.

The roads of South Australia are kept in excellent condition and are well adapted for automobiles. The drives in the country around Adelaide require a hill-climbing machine, but the ascents are, as a rule, gradual and easily accomplished by all kinds of cars. The eight, ten, twelve, and fifteen horsepower automobiles of French make give excellent satisfaction and are the most popular on the market, even though the cost be considerably higher than that formerly paid for American machines. A good French automobile can be bought here at retail for $1,400 and upward, while cars of American make are held at $400 or $500 cheaper. English automobiles are practically unknown here.

The carriage manufacturers of Adelaide are adding another line to their industry, which has already proved a profitable departure and bids fair to develop into a paying permanent business. They are importing the parts of the automobile from France, manufacturing the box here, with the necessary upholstering, etc., and placing the finished article on the market as the product of their own factories. No deception on the public is practiced, but, like the building of Australian carriages, from the output of American factories, it is another phase of the development of Australian industries encouraged by the consumer, and consequently profitable to those engaged in the business.

IMPORTATION OF BICYCLES.

Bicycles are also largely imported in parts, and in this importation the United States shares to quite a satisfactory extent. It is not probable, however, that a market of any dimensions for the finished article could be built up here, nor have any suggestions been made by the dealers that would assist in increasing the business already in the hands of the American manufacturers. In South Australia there is always a good, steady demand for bicycles, but the machines preferred by the purchasers are those bearing an Australian name, irrespective of the way they may be constructed, or from what country the material used in their manufacture is imported.

It is a misfortune that the trade in vehicles, of all descriptions of American make has been permitted slowly, but none the less surely, to lose its hold on this market, for the reasons which led up to this condition must of necessity be harmful to business in all other commodities manufactured in the United States and exported to this country. Investigations here show beyond the question of a doubt the vital importance of exporting goods suited in every way to the requirements of the market, and above all the absolute necessity of maintaining the standard and abstaining from increasing the price when a steady market with a growing demand has been established.

GENERAL TRADE RESTRICTIONS.

REQUIREMENTS DIFFICULT TO MEET—REVEALING TRADE SECRETS.

The London Chamber of Commerce Journal, in speaking of the regulations of the new Australian commerce act prohibiting the importation of certain specific goods into the commonwealth unless they have affixed to them a label or brand giving a true description of the goods and stating the country of origin, component materials, and, if weights or quantities are set out, whether they are gross or net, says that the regulations have caused some consternation among foreign exporters to Australia. It declares that the regulations are inconsistent, and sometimes most difficult, if not impossible, to comply with. In the case of proprietary articles, such as patent medicines and the like, although the act provides against the disclosure of trade secrets, the regulations require the composition of the article to be stated. That would put an end to the trade in proprietary articles with Australia. The Journal adds:

> In regard to boots and shoes, the term "solid leather" is understood in the trade here to mean that the bulk is solid leather, but a certain amount of stiffening is necessary, and there is a cotton lining, as well as a piece of felt, between the soles to prevent creaking. To require, as the regulations do, a description of the component parts in such detail is unreasonable and vexatious. Instances of a similar character could be multiplied ad infinitum, but we can now only give one other, which actually occurred in the course of trade. A cardigan jacket was made in Belgium, the buttons came from Austria, and the braid with which it was trimmed from Germany; silk sleeves and a flannel lining were put in here, the silk coming from France and the flannel lining from Yorkshire. The amount of description required for that garment would be extensive, while to describe the country of origin would, to say the least about it, be difficult. A largely attended meeting of firms interested in export trade with Australia was held at the London Chamber of Commerce on October 25 to consider the matter. A resolution was unanimously adopted affirming that the requirements of the act that the exact nature of materials and ingredients of certain imports into Australia shall be declared is extremely onerous and will hamper trade between Great Britain and Australia in many goods, the "trade description" of which from their nature can not reasonably be given in the form required, owing to their composition being a trade secret or to their being commonly known by generic or trade names.

NEW MILKING MACHINE.

In a report several months ago the Canadian commercial agent at Melbourne referred to the market available in Australasia for a milking machine of satisfactory mechanism. He now writes to his government:

A few days ago I inspected the practical application of a recently invented Australian milking machine which is now undergoing exhaustive tests at the Victorian Agricultural College. Thousands of dairy farmers have followed with great interest the attempts made to evolve a milking machine that would displace hand milking with its drudgery, lack of cleanliness, and cost. It was apparently demonstrated that the secret of squeezing the cow's teat and drawing the milk at one and the same operation has been discovered, whereas other machines milk by suction only. This process has been patented in Canada, and full particulars are being forwarded by the inventors to a Canadian firm interested in dairying requisites, with a view of having the machines manufactured and sold in the Dominion.

NEW ZEALAND.

OUTLOOK FOR THE UNITED STATES TRADE FAVORABLE.

Consul-General W. A. Prickitt, of Auckland, reports that the trade of New Zealand during the last ten years shows a very healthy growth. Trade with the United States increased steadily during the decade and shows a balance in favor of this country of several million dollars. The report follows:

New Zealand's total foreign trade in 1905 amounted to $141,661,935, an increase of $2,194,530 over 1904. The imports were valued at $64,144,285, and the exports $77,515,650. The trade of the Commonwealth increased in ten years $60,088,655, or more than 56 per cent. The excess of exports over imports during the ten years was $101,117,060. The total trade of the United States with New Zealand during the decade was about one-tenth of that of the United Kingdom and equal to one-third of that of the British possessions.

The balance of trade for the decade was $172,014,490 against the United Kingdom, but $18,477,105 in favor of the United States.

The imports from the United Kingdom in 1905 amounted to $38,976,420 and the exports thither to $60,439,090. The value of the imports from the following countries was: United States, $7,192,505; Germany, $1,387,335; New South Wales, $5,238,785; Fiji, $2,283,145; Victoria, $3,264,505; Bengal, $1,471,665; Canada, $370,425; Japan, $396,300; and Belgium, $390,755. The chief articles of import, with their values, were: Clothing, etc., $14,729,340; metal, machinery, and implements, $11,267,870; wine, beer, spirits, and tobacco, $3,079,110; and paper, books, and stationery, $2,899,740. The value of the articles exported was as follows: Wool, $27,906,665; frozen meat, $13,472,160; provisions, $10,838,080; butter, $7,042,785; flax, $3,482,335; kauri gum, $2,807,220; grain, $1,472,870; and cheese, $1,025,650. There was also exported $10,469,680 in gold. The principal countries, besides the United Kingdom, taking New Zealand's products were: New South Wales, $6,607,765; United States, $3,581,505; Victoria, $4,334,695; Cape Colony, $312,020; Canada, $213,545; and France, $244,815.

The imports into New Zealand from the United States increased in ten years over 291 per cent. The principal articles imported into the colony from the United States in 1905 were manufactures of iron and steel, valued at $2,016,160; tobacco, $775,425; boots and shoes, $305,750; oil, $858,815; fruit, $206,605; and paper, $161,580. The principal exports to the United States consisted of kauri gum to the value of $1,549,355; phormium fiber, $681,150; wool, $563,340; skins, $496,350; and sausage casings, $181,880.

FOREIGN TRADE PROGRESS.

The foreign trade of New Zealand during the fiscal year ended June 30 has again shown a considerable jump. The total imports and exports of merchandise amounted to £30,736,500 (£=$4.86), as against £27,746,700 in the preceding period, or an advance of nearly 12 per cent. The imports were £13,052,500, as compared with £12,375,900, and the exports £17,684,000, as compared with £15,370,800. The chief articles exported are gold, wool, frozen and preserved meat, and butter, these four items representing over 75 per cent of the total. The shipments of wool rose from £5,468,600 to £6,605,800; of meat, from £2,811,700 to £2,991,500; of gold, from £1,974,700 to £2,153,000, and of butter, from £1,418,000 to £1,540,300. The greatest relative advance is shown by wool, which is up 20 per cent, and then comes gold with a rise of 9 per cent. Butter exports have increased 8 per cent and those of meat 6 per cent.

STEAMSHIP SERVICE WITH BRITISH COLUMBIA.

Consul Abraham E. Smith, of Victoria, reports that steamship service between British Columbia and ports of Mexico will be commenced in March next. This service will be monthly and the steamship company will be paid an annual subsidy of $100,000 in gold, each government paying $50,000. The consul further reports that advices have been received at Victoria that the effort being made in the New Zealand parliament to authorize that government to establish steamship service between New Zealand and British Columbia is likely to succeed. It is proposed that the service shall be once every three weeks by vessels of not less than 6,000 tons each, furnished with refrigerating and chilled chambers for carrying fruit and dairy products. Time for the voyage shall not exceed 18 days each way. For this service it is proposed to pay a maximum subsidy of $100,000 gold per annum. At present the only direct connection between British Columbia and New Zealand is by two freight steamers making bimonthly trips, for which service $50,000 per annum is paid by New Zealand and a similar amount by Canada.

AFRICA.

EAST AFRICA.

COMMERCE OF ZANZIBAR.

IMPORTANCE AS DISTRIBUTING POINT—CHANCE FOR AMERICAN COTTON GOODS AND HARDWARE.

The island of Zanzibar is the subject of a report by Special Agent Raymond F. Crist. This island has been under British protection since November 4, 1890. It is the great storehouse and distributing center for trade of the whole east African coast, although with the development of the resources of the mainland and increased shipping facilities of the several mainland ports its relative commercial importance is not so great as in former years. Mr. Crist writes:

The islands of Zanzibar and Pemba (to the north) constitute the principal portions of the domain of the Sultan of Zanzibar, their nominal ruler. Zanzibar is the larger. It is of coral origin, about 50 miles in length and 20 miles in width, with low-lying hills and fertile valleys. These two islands produce about 92 per cent of the clove crop of the entire world in addition to large quantities of copra from the great number of cocoanut palms grown there. The native population, estimated at from 200,000 to 300,000, has made no material advance in the past half century toward taking on European customs and are, as a mass, afflicted with the indolence found among the native tribes of the Tropics. The white population does not exceed 500, mostly civil and military officials of the British Government and their families, the representatives of foreign governments accredited to the Sultan of Zanzibar, and the representatives of those foreign houses having branches here engaged in foreign trade. The natives are engaged for the most part on the clove shambas or farms, the cocoanut groves, in preparing the copra for market, in fishing, loading and discharging ships' cargoes, and on public works. The local business is in the hands of Indian traders and shopkeepers. Parsees hold the clerical positions, engage in the practice of law, and conduct general contracting. Household and domestic positions are filled by Goanese and some few natives. These races from India number 3,000 or 4,000.

RELATIONS WITH THE MAINLAND.

It is not as a producing center that Zanzibar takes its commercial importance, but rather from its geographical relation to the continent of Africa, to the Indian and Arabian coasts, and to the fine harbor on which is situated the town of Zanzibar. The islands of Pemba and Zanzibar form a natural breakwater between the African coast and the monsoons which sweep over the Indian ocean, and the harbor has pre-

sented for centuries an ideal base for the exchange of foreign-made commodities for the slaves, and native produce brought in caravans from the interior of Africa to the ports on the mainland and carried by Indian and Arabian dhows to Zanzibar and thence to the ports of India and Arabia for distribution to their ultimate destinations.

The channels thus formed by the movement of the commerce of the past centuries are difficult of change, and this will only be accomplished through the expenditure of much money and effort. The Uganda Railway of British East Africa has contributed greatly to the diversion to Mombasa of those products which formerly were brought by human carriers from the regions surrounding the great lakes of central Africa destined to Zanzibar. The harbor improvements at Kilindini, on Mombasa Island, will offer further inducements for transshipping goods at that point direct to the Uganda Railway, which at present is impossible of accomplishment. The ship subsidies given by the German Government, the development of German East Africa, the improvement of its chief port, Dar-es-salaam, through the building of harbor improvements and warehouse facilities, and the extension of the railway now under construction from that port to the interior will induce a greater annual commerce at the last-named port at the expense of Zanzibar.

A DISTRIBUTING POINT.

As a distributing port Zanzibar will however undoubtedly retain its supremacy in the East African trade over all others for many years to come, as there is much of the movement of the mainland produce confined necessarily to sailing dhows, which offer cheap transportation, and for the further reason that practically the entire trade with the natives of Africa is in the hands of Indian traders, who obtain their supplies of "trade goods" at Zanzibar from the old established branches of the Bombay firms in exchange for the produce obtained from the native Africans. The basis of the business operations between themselves and with the natives is such as to make it difficult for Europeans or Americans to offer such competition as to make any serious inroad into their control. Consequently those now striving for a share in this trade find it to their advantage to get into the commercial current and go with it rather than in opposition thereto. This is strongly evidenced by the practice of Germans of employing and supplying Indian traders with German-made goods for the "barter trade" with the natives in the interior of Africa. Realizing its importance the leading houses have established at Zanzibar their principal and, often, only branches, relying on agencies to look after interests in other ports.

Notwithstanding the commercial rivalry of other places Zanzibar has maintained an annual average trade of over $10,000,000, about equally divided between the imports and exports of merchandise, with the most recent years showing but slightly reduced totals. This showing in many instances necessarily places commodities in both of the columns, as may best be illustrated by the item of cloves and stems, which alone amounted in 1905 to $1,580,800 in imports and $1,535,000 in exports. It is usual to class all cloves grown on the islands of Pemba and Zanzibar as imports when they enter the customs warehouses of Zanzibar and as exports when leaving them. This practice prevails with regard to practically every article of the Zanzibar trade.

In handling this immense foreign transit trade during 1905, 212 ocean-going steamships entered the port of Zanzibar, aggregating 427,113 tons, of which 59 were British, 24 Austrian, 27 French, 95 German, and 7 of other nations, none of which were American. In addition to these, large numbers of sailing vessels or dhows carried various products of the mainland, of India Arabia, and the islands of the Indian Ocean.

LIMIT OF AMERICAN TRADE.

Historically, America should dominate the East African trade, as American merchants were among the first to locate at Zanzibar and build up close relations with the natives. Appreciating the commercial importance of this port our Government established a consulate there as far back as 1834. The field thus preempted, and which might have been held by Americans, was allowed to drift into other hands until the trade in American commodities is now practically limited to gray or unbleached cotton goods and kerosene oil.

The principal countries engaged in this trade are shown here:

	1905.		Average, 1900 to 1904.	
	Imports.	Exports.	Imports.	Exports.
United States	$378,000	$319,000	$337,000	$365,000
British India	1,738,000	912,000	1,952,000	717,000
German East Africa	821,000	1,091,000	987,000	1,749,000
United Kingdom	914,000	487,000	638,000	537,000
British East Africa	191,000	926,000	363,000	566,000
France	47,000	630,000	82,000	562,000
Germany	244,000	333.000	314.000	279,000
Holland	219,000	185,000	198,000	138,000

The articles entering into this trade which come from the United States are limited to gray cotton piece goods, petroleum, hardware, and small amounts of groceries. The ultimate destination of these commodities is the mainland, and principally the Italian Ben-adir ports, British East Africa, and German East Africa. This is particularly noticeable in the cotton goods, or "Americani," practically the entire amount being distributed to the mainland, where it goes far inland and figures largely in the barter for ivory, hides, and skins. In 1905 over $350,000 of these American cottons were entered at the Zanzibar customs to be distributed to the three African colonies mentioned, the greatest portion going to the Italian.

In this class of gray cottons, known as "Americani," there has been a determined effort on the part of India mills to introduce their imitations of the American product, with the result that large amounts are being sold to the African trade. In the past year there were shipped from Bombay $96,000 of cotton stuffs classed as American, some of which was due to transshipments at that port, while much of it was of India manufacture.

FIELD FOR AMERICAN COTTON GOODS.

The entire cotton imports of Zanzibar amounted in 1905 to $1,650,000, less than one-fourth being of American origin. This is by far the most important item of the Zanzibar trade. Cotton goods offer a field for American enterprise to capture a larger share of this market than heretofore, in certain items in which there is at present no American

representation. These articles are here described, together with their annual sales and the countries from which they come.

Articles.	United Kingdom.	Holland.	Germany.	India.	Total.
Blankets	$387	$11,000	$8,500	.....	a$20,000
Gray shirting	3,000	.....	.....	$142,000	145,000
White shirting	63,000	7,000	2,500	22,500	95,000
Khangas	203,000	147,000	4,000	.....	a359,000
Kaniki	140,000	5,800	.....	67,000	a215,000
Prints	.....	.....	4,500	4,500	.....
Hosiery	.....	.....	3,600	3,600	.....

a Small amounts from other countries make up the entire total here stated.

BLANKETS AND SHIRTINGS.

The blankets are similar to those manufactured for the trade of northern China, samples of which were sent to the Department of Commerce from Tientsin last year.

Gray shirtings are the cheaper and lighter weights, ranging from 6 to 10 pounds in lengths of 39 yards or 40 yards and 36-inch widths.

White shirtings are also of the lighter weights, well-sized, and similar to the lighter weights sold in the Tientsin market, samples of which were also forwarded by me from China and on file in the Bureau of Manufactures. They are used in making the long shirt-like garments which are worn extensively by natives and reach from the shoulders to the ankles. The khanga samples forwarded are described in the report on British East Africa. Kaniki are heavily sized, indigo-blue cottons of shirting weave, and are worn in both British East Africa and Zanzibar, and distributed throughout the east coast of Africa. The prints are ordinary flimsy cotton cloth with figures after native patterns. Hosiery is of heavy, coarse, knitting, and cheap workmanship.

PETROLEUM AND HARDWARE.

Petroleum is imported in large quantities, by far the largest portion coming from Sumatra, the American product amounting to about one-fifth of the total of $190,000 in 1905. The mainland received $100,000 of the total imports of petroleum; German East Africa taking $42,000, the Sultan's Dominions $41,000, and British East Africa $8,000, the remainder going to other colonies. The foreign, or white, population use the American oil solely, while the mass of the natives use the other kinds, although much inferior but cheaper in price.

Hardware imports amounted in 1905 to $152,000, and that of American manufacture amounted to $73,845, consisting mainly of railway and electric-light equipment for a small tram and steam railway, and the installation of an electric lighting system for the city of Zanzibar. Both of these enterprises are backed by American capital. The average annual imports of hardware amount to $100,000, coming principally from Bombay, the United Kingdom, Austria, and Germany, and a quite small portion from America.

COUNTRIES OF SUPPLY.

The following articles come wholly or principally from the United Kingdom: Machinery, $25,000; cutlery, $9,000; coal, $110,000; corrugated iron, $25,000; cement, paint, oil, and turpentine, $21,500; and groceries, $182,000.

India is the great supplier of various foodstuffs to this region. Grains alone amount to $870,000, principal of which is rice, $750,000, others being millets, pulse, rutama, beans, etc.

Germany supplies substantial portions of such building materials as cement and corrugated iron; also wines, sugar, and about all of the beer and ale. Wines come from France, the United Kingdom, and Germany, the latter country also selling a large share of the glassware and crockery.

DOMESTIC PRODUCTS EXPORTED.

In the exports of produce from the Sultan's Dominions cloves and clove stems take first rank, and in 1905 amounted to $1,535,000. These were distributed to India to the value of $707,000; the United Kingdom, $276,000; Germany, $151,000; the United States, $163,000; the remaining portion being distributed to other European and Asiatic countries.

The other items classed as exports come principally from Africa. That showing the highest average value is ivory $228,000. Hides and skins rank second at $147,000, rubber $100,000, gum copal $62,000, and chillies $45,000. The United States takes 36 per cent of the ivory, 25 per cent of the hides and skins, and 77 per cent of the chillies, the remainder of this last-named article goes to the United Kingdom and India. The following gives the percentage distribution to other countries of these exports: Ivory, 27 per cent to India, 34 per cent to the United Kingdom. Hides and skins, Germany, 30 per cent; Austria-Hungary, 20 per cent; United Kingdom, 14 per cent; France, 11 per cent. Gum copal is divided between the United Kingdom and Germany, the former receiving 88 per cent. Rubber is principally received from German East Africa, and 80 per cent of it is destined to Germany, the remaining 20 per cent to England.

These items constitute the bulk of the export trade of Zanzibar, although a large total value is made up of many articles of lesser importance, such as hippopotamus teeth, rhinoceros horns, shells, sim sim or sesame oil, which go to the Asiatic ports of Bombay and Aden, beads for the mainland of Africa, and tortoise shell for England.

The field does not appear to offer very attractive inducements for a general expansion of American trade, save perhaps along the line of cotton goods and possibly hardware utensils, which are at present in the hands of our competitors in the values and countries indicated. If, however, American agents or representatives of our cotton mills should locate at Zanzibar with a branch at Mombasa, ready to meet the demands and competition of the market, a sale of such goods as are indicated might be built up in time.

LOURENCO MARQUEZ.

TRADE CONDITIONS AND OPPORTUNITIES IN PORTUGAL'S COLONY.

The annexed report on trade conditions in that portion of East Africa controlled by Portugal is from Special Agent Crist:

The Portuguese East Africa colony extends on its coast line about 1,400 miles, fronting on the Mozambique Channel and the Indian Ocean. Its widest portion is in the north, where it extends for over 400 miles inland, and its narrowest in the south, where it is about 60 miles in width in the vicinity of Lourenço Marquez, its capital and chief city

and port. Its area is approximately 780,000 square kilometers, and it has an estimated native population of 3,120,000, with many thousand Asiatics and Europeans.

This colony is administered by a governor-general, residing at Lourenço Marquez, and by governors of the various districts, all appointed by the Crown. There are six administrative districts, two of which represent concessions under Royal charters to the Mozambique and the Nyassa companies. The charters of these companies prescribe in general terms that they shall develop the agricultural, mineral, and commercial resources of their respective territories as well as colonize them. At present there has, however, been little done beyond gathering indigenous products—rubber, ivory, hides and skins, mangrove bark, and groundnuts. Most of these are obtained by the natives, either independently or in the employ of the companies. Nothing of either mining or agriculture has been extensively carried on. In addition to the provisions mentioned, the Nyassa company's charter provides that a railroad shall be constructed from the coast at Pemba Bay to Lake Nyassa. Although the company has existed since 1901 no progress has been made in actual construction. The Mozambique company was chartered in 1891. Its territory embraces that portion of the colony from the southern mouth of the Zambesi and extending inland for about 300 miles.

AGRICULTURAL AND MINERAL RESOURCES.

Within the territories of these companies deposits of gold-bearing quartz, copper, and coal have been found, but no great effort has been made to develop them. Recently some study has been given to the growth of cotton, cocoanut palms, tobacco, coffee, and sugar. On the banks of the Zambesi River a company has been engaged in producing sugar, and in the past few years have annually shipped between 6,000 and 7,000 tons of their product to Lisbon. At Inhambane an English company has invested capital in a sugar-cane plantation and mill and is now shipping about 800 tons a year to Lisbon. The bounty of £7 per ton for all sugar produced in Portuguese colonies and shipped to Portugal makes this a very remunerative business and presents an attractive field for the investment of capital. The swampy and malarious districts which are found throughout this colony are not conducive to extensive Caucasian immigration. In addition to this, various diseases attack live stock to such an extent as to prove fatal in many instances to the native cattle. Consequently the agricultural development of the country is almost exclusively in the hands of the native, and is therefore very limited.

In the district around the upper Zambesi River, lying between Rhodesia and British Central Africa, known as the district of Tete, the high plains and plateaus afford opportunities for extensive agriculture, and the mountains for mining. These industries are carried on together with stock raising and the manufacture of tiles, bricks, and coir by the foreign settlements, which are quite extensive. Wheat, maize, cotton, tobacco, sugar cane, and cattle are the principal agricultural products, and gold, copper, coal, and silver are the principal mining outputs.

WATER TRANSPORTATION FACILITIES.

Although there are several ports of call on the coast for ships in the East Africa trade, the most important is that of Lourenço Marquez,

which has good harbor, dock, and landing facilities. Beira is the second port, deriving its importance from a harbor which has possibilities for fine development, and to the inland transportation offered by the Beira and Mashonaland Railway, which has its tidewater terminus at this port. It is the natural port for the distribution of the supplies for Rhodesia. The headquarters of the Mozambique chartered company are located at Beira. Other ports have promise of future importance upon the development of modern transportation and communication with the inland.

The Zambesi River, one of the five large rivers of Africa, is navigable to vessels drawing not over 7 feet for about 100 miles only, and is inaccessible to ocean steamers on account of bar at its mouths. The rivers of the colony are unsuited to navigation purposes for sea-going ships.

LOURENÇO MARQUEZ A COMMERCIAL CENTER.

Lourenço Marquez may be said to occupy the position of that of a storage depot and forwarding station for goods for the Transvaal colony. This is due to three causes: First, its geographical position, which gives it an advantage over its nearest competitor, Durban. The distance from this port by rail to Johannesburg is 296 miles, which is traveled in twenty hours. From Durban to Johannesburg the distance is 482 miles, and the time consumed between these two points is twenty-four hours. Second. Preferential railway freight rates, which were extended by the Transvaal Republic and perpetuated in a somewhat modified degree in the modus vivendi of 1901. By this agreement a preferential rate of practically 20 per cent was obtained for goods entering this port and passing by rail to the Transvaal colony. Third. Harbor and shipping facilities. Previously no facilities existed for discharge of cargoes in Delagoa Bay, but during the last four years improvements have been inaugurated and wharfage facilities created sufficient to accommodate five ocean-going ships alongside the customs warehouses and railway tracks. These facilities are the best on the coast with the exception of those at Durban.

The important bearing which these conditions have upon the trade of Lourenço Marquez with the Transvaal is shown by the fact that in 1905 over 51 per cent of the imports into Transvaal by sea passed through Lourenço Marquez, as against 36.5 per cent from Durban and 12 per cent through Cape Colony ports. With increased harbor facilities and more direct railway connection with Johannesburg, both of which projects are under construction, a much larger portion of the supplies for the Transvaal will pass through this port.

PREVAILING BUSINESS METHODS.

In view of the dual character of the foreign trade of Lourenço Marquez two distinct methods of business prevail. The character of goods entering into these two classes of trade is quite distinctive of the two territories supplied. With the Transvaal, mining and agriculture industries are the most important, and articles imported are necessarily the machines, tools, implements, and materials for the prosecution of these enterprises. As there is practically nothing done in either agriculture or mining in the Portuguese territory supplied by Lourenço Marquez, the demands require the furnishing of goods suited to the fancies of the native inhabitants, and the ordinary wants of the European population of Lourenço Marquez and its outlying districts. On account of

the vast harbor construction and the railway building now being conducted by the Portuguese authorities, immense supplies of the character indicated by these works have been purchased and will continue to be required for some time to come. In the furnishing of these supplies those firms having personal local representation have alone been successful.

BRITISH AND GERMAN LOCAL AGENCIES.

To compete in supplying the demands of the up-country trade English and German concerns have branches in both Johannesburg and Lourenço Marquez, and in the latter place large stocks are kept, from which orders sent to the head offices in England and Europe are filled, immediately shipped to the Transvaal branch, and new supplies shipped to Lourenço Marquez upon notice. Settlement for these goods is made by the head office with the manufacturer, and later by the branches to the main European office. This is general in large business houses where staple articles are concerned. Orders from agents are settled by drawing bills against documents, which are forwarded with the goods and placed in the hands of the banking institutions located at this port. The small trade with the Transvaal called the "sorting-up trade" is carried on by lumping together several small orders for a commodity, and upon arrival of the goods delivery is taken by each merchant of his portion. By this means better freight, insurance, and market rates are obtained, enabling these merchants to compete in the market with those purchasing in larger quantities. This sorting-up trade is quite extensive. The Bank of Africa, is a correspondent of the American bank, the International Banking Corporation, and the Standard Bank of South Africa, which have branches in New York City, and with the African Banking Corporation and the Portuguese Banco Nacional Ultramarino, with branches in Lourenço Marquez. Through the branches in New York the financial standing of any merchant in Lourenço Marquez can readily be ascertained.

POSITION OF UNITED STATES.

The position which the United States occupies in the local and transit trade of this port is fourth and third, respectively, being surpassed by England, Portugal, and Germany in the local and by England and Germany in the transit trade. The trade of the United States with this port has dropped from $338,000 in 1903 to $183,000 in 1905, a decrease of $155,000. On the other hand, this has been more than offset in the transit trade during that period by an increase from $2,560,000 in 1903 to $2,818,000 in 1905, showing an increase of $254,000 in the field, which is by far the more important.

The United Kingdom and British possessions lead in both the local and transit trade, having $1,700,000 of the former and $8,600,000 of the latter in 1905. Germany and its colonies stand second in the combined trade of the port. Their transit trade exceeds that of the United States by $1,014,000, and amounted to $3,832,000 in 1905, while their participation in the local trade in the same year equaled $770,000, a falling off of over $105,000 since 1903. Portuguese commodities take second rank in the local trade, amounting in 1905 to $1,683,000, although sustaining a net decrease in the past three years.

The percentages of the participation of the countries engaged in the foreign trade of this port are here given for 1905:

United Kingdom and British possessions	37.4	Belgium	3.4
Portugal	33.1	France	2.8
Germany	15.1	Holland	1.2
United States	3.6	Others	3.4

From this it is seen that while America ranks fourth, the nearest leading competitor, Germany, has over four times the volume of trade with this port, and the United Kingdom and possessions have more than ten times that of America.

CAUSES FOR AMERICAN DECLINE.

The causes which have led to the decrease in the imports of American commodities may be summarized as follows:

Absence of Americans in this port.

Failure of American manufacturers or exporters to establish agencies with which they deal directly, but requiring merchants in Lourenço Marquez to transact business through agents located in England or in the English colonies of South Africa, thereby placing a premium on such goods in the presence of similar products of competitor nations.

Failure to consider that the language and business training of the Portuguese differ from the English.

Lack of direct shipping from ports of the United States to Portuguese East Africa.

Such causes are within the power of Americans to overcome, and that there is need for this is evidenced by the inroads which German commodities have made and the strong lead they have over American commodities.

REASONS FOR BRITISH AND GERMAN PROGRESS.

While these causes have militated against American advancement, in direct contrast thereto may be placed the German successes, which are attributable to the following:

Presence of German representatives of German manufacturers, having an intimate knowledge of the market and the language, which enables them to compete intelligently and successfully in supplying its needs.

Regular and frequent transportation facilities which are afforded German manufacturers in their subsidized shipping enable German products to be placed upon this market below the figures at which it is possible for other countries to compete successfully.

The predominance of English trade is due to the presence of their representatives, antedating all others, thereby establishing a preference for English commodities, and to the further fact that they properly value the foreign market and realize the need of continually supplying its demands, which can hardly be said of American manufacturers, except in a few instances.

American manufacturers, instead of placing here representatives of their own nationality, depend on the service of foreign agents. Even with this handicap they have themselves in many instances placed an additional barrier in the way of sales of their goods. This is the custom adopted by many large American manufacturers of turning all orders from Portuguese East Africa over to their English branch, a custom which almost invariably results in referring the Portuguese merchant to the South African agent with the statement that all goods are furnished through that agency. With freight rates from New

York to African ports cheaper than from England, it is evident that the cost of shipping to England and then to South Africa, with the expense of transshipment both in England and in Cape Town or other South African port where the agent may be located, a higher proportionate cost for the short haul from there to Lourenço Marquez, together with the import duty, port charges, and commission of the South African agent, all place American goods at disadvantage instead of facilitating their sale.

PRINCIPAL COMMODITIES IMPORTED.

Lourenço Marquez is not in British territory. It is outside of the customs union, by which all British colonies of South Africa fare alike, and business is upon a different and independent footing, a condition recognized by foreign traders of other countries. These conditions, together with the difference in language, should cause American manufacturers to consider Portuguese East Africa in its true light as a separate territory in assigning agencies for the English colonies of South Africa.

The principal item of the import trade of Lourenço Marquez for local purposes is that of cheap Portuguese wine, the importation of which has had a remarkable increase in the past four or five years. It is mostly consumed by the native blacks in place of spirituous liquors, the sale of which is prohibited to them. In 1898 this low-grade wine was imported to the extent of 764,000 gallons, and in 1905 it had increased to 2,147,225 gallons, valued at $1,000,000 in round numbers. The entire imports from Portugal in 1905 equaled $1,683,000, the bulk of this being sparkling and cheap wines.

Cotton cloth constitutes the next most important item of imports. This amount in 1905 aggregated $404,000, of which $37,000 were plain cotton cloth and $367,000 were printed and dyed goods. The report of the American consul at this port, printed in part in the consular reports for April, 1904, describes the conditions then existing and which still prevail. There are no American cottons in evidence in this market, the countries supplying cotton goods being England, India, Holland, Portugal, Germany, and France.

SUPPLIES FROM VARIOUS COUNTRIES.

The principal commodities purchased from America are beer, flour, furniture, typewriters, sewing machines, agricultural implements (hoes, spades, and wheelbarrows), vehicles, kerosene oil, and preserved meats. These articles were imported to a total value in 1905 of $477,000, that part from the United States being $117.000, or 24 per cent. Other important commodities in the trade of this section are:

Boots and shoes	$60,000	Condensed milk	$31,000
Butter and lard	70,000	Potatoes	39,000
Cattle	60,000	Fresh meats	25,000
Cement	60,000	Paper	25,000
Chemicals and drugs	45,000	Mineral water	25,000
Hats and caps	35,000	Rice	178,000
Coal	100,000	Laundry soap	30,000
Sardines	45,000	Sugar	30,000
Dried and preserved fruits and vegetables	44,000	Tobacco	78,000
		Spirituous liquors	40,000
Hardware	50,000	Sparkling wines	70,000
Galvanized sheet iron	60,000	Timber	91,000
Railway materials	128,000	Fine lumber and manufactured woods	30,000
Rails	148,000		

By far the largest portion of these come from the United Kingdom and possessions. The most notable exceptions are in cattle from Madagascar, boots and shoes, butter and lard, sardines, preserved meats, soap, tobacco, and sparkling and common wines, in which the greatest portions come from Portugal. Germany furnishes the most of the cement, mineral water, and sugar, while the greatest supplies of steel rails come from Belgium. Norway and Sweden furnish the bulk of the lumber and timber, although 30 per cent of the timber comes from the United States, and with this one exception American manufacturers furnish no part, or at most but a very small share, of the articles named above.

THE KAFFIR TRADE.

One large and prominent feature of this trade is what is known as the "Kaffir trade." The districts of Inhambane, Gaza, and Lourenço Marquez furnish from 60 to 70 per cent of the native labor for the Transvaal mines. Each year there are from 38,000 to 40,000 natives of the Portuguese colony recruited for the Rand mines from these districts through the governmental agencies established in the Portuguese and Transvaal colonies. By these agencies close registration is kept of both the outgoing and incoming natives and of their movements while sojourning in the Transvaal. Several thousand Kaffirs, however, enter the Transvaal annually without such registration, their number being estimated at from 7,000 to 10,000. During 1905 there were known to be over 56,000 registered native laborers on the mines from the districts referred to. These natives engage themselves for a period of one year, and in many instances reengage for a similar period at the expiration of their first term of service. As with the original engagement, any renewals of service are only permitted under joint sanction of the two Governments. Their average yearly earnings are about $160, or about $13 or $14 per month, according to the capacity of the individual, piecework prevailing. From one-third to one-half of these earnings are expended in the Transvaal and the remainder brought to Portuguese territory upon their return, the per capita average being slightly less than $100. With an annual average return conservatively placed at 38,000 Kaffirs, in the neighborhood of $3,600,000 to $3,800,000 is brought into this and the surrounding districts.

The annual earnings of natives engaged in agriculture and of those engaged in the various local occupations have been authoritatively placed in the neighborhood of $1,200,000, making a total amount available of from $4,800,000 to $5,000,000 in the hands of the natives. From reliable figures obtained, about one-half of this is expended in the purchase of cheap Portuguese wine, one-fifth in immigration fees by the mine recruits and in native-hut taxes, and the remainder in buying cloth, blankets, clothing, umbrellas, cutlery, foreign foodstuffs, such as canned fruits, vegetables, meats and sardines, cheese, etc., beads, wire for personal adornment, and the other cheap fancy articles constituting the "Kaffir trade."

IMPORTANCE OF RESIDENT AGENTS.

In many of the lines in which American goods are in evidence a much larger share could be obtained, and in many others in which no representation is found sales could be effected by the establishment of

resident American agents, or through the medium of traveling salesmen. If manufacturers of noncompeting lines would combine and send out a representative resident or traveling agent, greater results would probably accrue than from any other method now adopted. Many such agents are now in the field from the principal countries competing for foreign trade, and from all evidence at hand highly satisfactory results are obtained.

While in the lists named above there is no great predominance in point of numbers of German commodities, nevertheless large quantities are sold of almost every article mentioned. This is unquestionably due to the presence of resident German agents in this field. The predominance of Portuguese products is entirely due to the presence of large numbers of representatives of Portuguese export houses, which is but natural, as this is a Portuguese colony. In no port of the entire east coast of Africa are Portuguese products to be found in appreciable quantities outside of Portuguese East Africa, and their sale here is due to the enterprise of Portuguese manufacturers in establishing branches here.

TRADE MOVEMENTS.

HEAVY IMPORTS AT PORTUGUESE PORT LOURENÇO MARQUEZ.

Consul W. S. Hollis, in his annual report for 1905, shows the trade of Lourenço Marquez, including imports in transit for the Transvaal, and the trade of Mozambique to be as follows:

Countries.	Imports for—		Exports.	Mozambique.	
	Consumption.	Transvaal.		Imports.	Exports.
United States	$182,847	$2,812,892	.....	$193,728	$92
Austria	8,946	448,982	$1,406	11,098	1,406
Belgium	173,086	356,539	125	178,606	125
Brazil	1,888	37,856	.....	1,888	.....
Denmark	2,471	18,987	.....	.....	.....
France and possessions	142,425	100,291	15	211,643	175,544
Netherlands	64,185	258,264	1,658	81,674	22,108
Argentina	2,186	80,070	.....	2,186	.....
Norway and Sweden	81,153	1,209,401	.....	83,301	.....
Portugal and possessions	1,643,604	56,063	15,532	2,433,803	451,470
Germany	768,463	3,824,454	3,167	951,729	428,600
Russia	14,732	367,415	240	17,510	248
United Kingdom and possessions	1,722,178	12,217,302	7,680	2,348,661	98,664
Italy	21,812	84,444	.....	28,380	.....
All other countries	236,614	31,082	1,787	186,887	554
Total	5,066,590	21,903,042	31,610	6,721,094	1,178,811

DEVELOPMENT OF INTERIOR AFRICA.

Prince Adolphus Frederick of Mecklenburg-Schwerin, in a lecture at Berlin, gave an account of a journey in East and Equatorial Africa, and referred to his experiences of the Uganda Railway and of British trade on the Victoria Nyanza. He said that when he had first traveled by the Uganda Railway in 1902 the only settlers in the neighborhood of the stations were a few railway employees. Last year there were no fewer than 600 whites and Indian settlers along the line, and fresh applications for land were being daily received. Traffic on Lake Victoria had, in consequence of the railway service, developed to such an extent that the two English lake steamers of 500 tons each had

proved unable to cope with it. A British steamer of 1,000 tons was now being built in order to convey goods to and from the railway terminus. He stated that the example of the English and their success on Lake Victoria ought to encourage the Germans to anticipate their rivals on Lake Nyassa by hastening on the construction of the projected railway from Lake Nyassa to Kilwa, on the German East African coast.

SOUTH AFRICA.

THE COMMERCIAL SITUATION.

ANNUAL TRADE STATISTICS—DEVELOPMENT OF AGRICULTURE.

Vice-Consul-General C. M. Knight makes a report on the trade of British South Africa for 1905, together with comments on current industrial topics, in the following letter from Cape Town:

One of the most interesting features of the commercial situation in Cape Town is found in the strong position which the banks hold in proportion to the trade. In 1898 the fixed and floating deposits in the local banks aggregated $34,745,160; in 1905 the amount was $56,572,440. The coin in hand in 1898 was $7,544,739, and in 1905 $13,043,597.

The imports for 1905 show a decrease of $5,353,150 from those of 1904. The decline in building operations accounts considerably for this. Of bricks, 4,457,306 were imported in 1904 and 1,077,034 in 1905; unmanufactured wood dropped from $1,546,435 in 1904 to $743,713 in 1905. The exports for 1905 amounted to $162,200,348, including gold, an increase of $29,199,000 over 1904. The exports of animals, carts and wagons, saddlery and harness to German South Africa amounted to $4,867,000. Diamonds show a decrease of $1,636,741, while wool increased $452,585.

Through the efforts of an agricultural superintendent and the assistance of the government, no less than ten cooperative organizations have been formed and about twenty more are under consideration. These concerns, such as creameries, wineries, and preserving companies, will lead to more intelligent methods being adopted by the natives. The increase in the sale of articles needed by farmers is considerable. Such articles as cream separators, machinery for creameries, well-boring machinery, fencing material, and equipments for fruit and poultry farmers are in demand.

LOCAL DEVELOPMENTS—IMPORTS BY ARTICLES.

The importation of coal in 1905 shows a decrease of 29,522 tons compared with 1904. The production of coal in British South Africa was 4,045,435 tons, an increase of 545,641 tons over 1904. The increase in importation of unmanufactured tobacco was 1,049,462 pounds. A large cigarette factory, costing $121,663 and employing 400 hands, is in operation in Cape Town. The output of cigarettes is 1,500,000 per day, 16 cigarette machines being in operation, which will shortly be increased to 24.

The total mileage of railway opened and under construction in Cape Colony in 1905 was 2,987, of which 323 was completed that year. In *Rhodesia* 1,857 miles have been completed and 383 miles are under

construction. Natal has contributed 42 miles of railway built in 1905, making a total of 783 miles for that country. The total number of miles of railway in British South Africa completed and in course of construction in 1905 was 8,337.

The total value of imports into Cape Colony in 1905, including articles for the colonial government ($2,293,872) and specie ($1,167,683), and exclusive of $1,010,787 South African products imported overland, was $97,334,443.

The principal articles of import into Cape Colony and Natal, with their total values, and the chief imports from the United States into Cape Colony, are shown in the annexed table:

Articles.	Cape Colony.		Natal, total imports.
	Total imports.	Imports from United States.	
Agricultural implements	$835,082	$298,224	.....
Animals, live	1,338,012	70,920	$216,185
Apparel and slops	4,285,897	128,047	2,053,167
Bags, not leather	542,897	4,214	293,465
Breadstuffs	7,297,857	292,223	1,844,219
Candles	420,874	43,784	243,744
Clocks and watches	846,879	13,607	79,538
Confectionery	571,999	16,955	287,002
Cotton manufactures	3,149,706	39,229	168,964
Drugs and chemicals	1,196,624	95,529	84,648
Fruit, dried	.....	33,905	.....
Haberdashery, etc	7,306,792	.....	3,803,113
Iron and steel, manufactures of:			
Engines and machines	.....	90,420	.....
Machinery—			
Agricultural	642,378	355,921	194,047
Electrical	538,786	140,248	784,171
Mining	1,432,011	.....	1,067,564
Railway material	1,505,778	159,368	236,741
Tools	.....	51,862	.....
Wire	.....	249,301	.....
Instruments, musical	379,796	31,160	361,167
Leather, and manufactures of	4,973,229	82,871	1,745,385
Oil, including paraffin	1,018,427	.....	390,264
Provisions	6,743,931	244,840	1,208,348
Stationery, etc	2,111,817	.....	322,566
Sugar	3,467,468	61,746	155,451
Tobacco, manufactures of	1,101,887	177,680	549,418
Vehicles: Carriages, carts, motor cars, etc	1,126,327	158,180	432,108
Wood, and manufactures of	4,792,563	546,217	.....

The imports into Natal in 1905 from the United States amounted to $3,986,028, and the exports thereto $5,767.

The exports, including gold bullion valued at $100,888,185 and diamonds to the value of $32,090,839, amounted to $162,200,348. The principal exports other than gold and diamonds were: Wool, $9,105,277; ostrich feathers, $5,261,597; living animals, $3,946,235; Angora hair, $2,766,506; brass and copper, including copper ore, etc., $2,788,884; skins, $2,334,931; and carriages and carts, $410,781. The exports to the United States amounted to $100,232, the principal articles being goatskins, valued at $47,180; buchu, $10,298; ostrich feathers, $19,637; sheepskins, $6,608; and flowers, $6,380.

RAISING OSTRICHES.

THE METHODS AND FINANCIAL RETURNS.

In reply to an American inquiry relative to the ostrich industry in Cape Colony, Consul-General Julius G. Lay, of Cape Town, furnishes the following, which was furnished him by the editor of the Agricultural Journal of the Cape of Good Hope:

It is almost impossible to say what would be the average market value of an ostrich, as they vary so greatly. The value of a bird 1 year old would run from 10 s. ($2.43) to about £50 ($243.32), while a bird of 2 years or more would vary from £1 ($4.87) to £200 ($973.17). However, you might place the average value of a 2-year-old bird at £25 ($121.66). In the Oudtshoorn division, which is the special district for ostriches, a clipping is worth about £5 ($24.33), and you get three clippings in two years. Good-class birds give a clipping worth about £25 ($121.66) or even more, others again are not worth £1 ($4.86). The bulk are probably worth £5 ($24.33). The export duty is, I believe, £100 ($486.66) on a bird and £10 ($48.66) on an egg, but that you can verify by applying to the customs. Good birds fed on lucerne, of which it takes a morgen (2 acres) for six birds, will bring in, roughly, a return of about £8 ($38.93) per annum. Although this looks like a very big return, as a matter of fact the same value can be obtained by baling and selling lucerne as hay, because the latter commodity commands between £5 ($24.33) and £6 ($29.20) per ton on the farms in this country. Fifty is a fair percentage of a setting of eggs to hatch and raise. Poorer-class birds give a higher return of chicks, owing to their not being fed with such rich food. Of the actual setting, you can reckon on hatching 70 or 80 per cent, providing the eggs are fertile. There is a section of the S. A. Stud Book Association called the ostrich section, which consists of leading ostrich breeders in this colony, including Oudtshoorn and the Karoo. Full particulars of this can be obtained by applying to J. Pike, secretary, S. A. Stud Book, Parker's Building, Strand street, Cape Town, South Africa.

In addition to the above particulars it is stated that the annual production of feathers in Cape Colony is approximately 389,000 pounds. The total number of ostriches in Cape Colony on ostrich farms at the time of the last census, 1904, was 357,970.

TABLE FILTERS.

ACTIVE MARKET FOR WATER PURIFIERS.

Referring to a large and steadily increasing demand for table filters in South Africa, the British and South African Export Gazette says:

No one who knows the country can be in doubt as to the immense scope there must be for the sale of any practical kind of water purifier, and the only wonder is that the trade has not been more assiduously cultivated. Last year's fillip was not so much the result of added necessity for the use of filters as of the enterprisng action of one or two makers, the pioneer firm being a continental one. The representative of the latter discovered that the Kimberley district was having trouble with its water supply—we recorded the passage of a bill for additional works on the Vaal River in our last issue—and old wells affording the brackish supply characteristic of the locality were being opened up, so he seized the opportunity to push his firm's filters, and with such good effect that other centers were also energetically worked and a substantial business in that particular make was built up.

MARKET AWAITING CULTIVATION.

Glass-domed filters with natural sandstone blocks have had an especially good run of late in the South African market, but there is no immovable prejudice in favor of these, and any type of real utility may be introduced with the certainty of success if it is only offered with sufficient advertisement and push to prove the maker's own confidence in it. New hardware lines, some novel and some decidedly the reverse, are brought to the attention of importers daily, and it is small wonder that the latter seldom venture to speculate unless the manufacturer succeeds in thoroughly impressing them with the salability of his article. In regard to table filters, though, circumstances already do much to insure the attention of importers when asked to stock

these lines, for, save in a few exceptionally favored centers, there is no household in South Africa, either in town or country, where a simple and rapid mechanical purifier would not prove an immense boon. As in other parts of the world, however, ineffective or inconvenient types have served to render buyers suspicious, and a modicum of selling effort must be the preliminary to success. In other words, the buyer's enthusiasm for these useful articles has been sufficiently damped to render him careless of seeking supplies, but that he will readily invest in any obviously satisfactory filter if it is adequately brought to his notice we unhesitatingly assert.

AFRICAN ISLANDS.

JOINT COMMERCIAL TRIP.

SUGGESTIONS FOR TRADE WITH AZORES, MADEIRA, AND CANARIES.

Consul Maxwell Blake, of Funchal, suggests a plan by which American trade could be developed in Madeira and the adjoining islands. He writes:

The idea is to introduce in a direct and personal way, by means of an experienced salesman, samples of American products in markets obviously rich but where from varying reasons they are to-day almost unknown. The plan embraces the following itinerary: From New York to the Azores, thence to Madeira and the Canary Islands. The trip could then be extended to Tangier, in Morocco, and to Spain, all on direct steamer routes. No doubt in any of the above places an independent market could be developed, but, unfortunately, as this individual effort has not yet nor seems at all likely to be made, these several points being connected, as they are, by the same steamship company offer a most convenient circle for commercial visit and experiment.

The consuls in the prospective places of visit could suggest, as is done below, those articles that seem to offer the greatest opportunities, following which some half dozen or more noncompeting houses could each contribute their proportionate share toward the expense of one salesman to collectively represent them on this trade-seeking excursion. This proposed route could be well canvassed in about three months' time or less at a total expense, liberally estimated, at not more than $3,000, which, properly divided among the participating firms, would reduce to a very nominal figure the individual expense.

Circulars in the different languages could be mailed to all the leading merchants in advance, announcing the date of the exposition, and other methods adopted to properly advertise it. It must be owned, however, that much of the success of the venture would depend on the character of salesman selected.

Toward the realization of this scheme the following articles are suggested and can be assured of a good market in Madeira if introduced in the above way: House paints and enamel, hardware, locks, agricultural implements, tools (carpenter's, plumber's, stone mason's), cotton goods, canvas, duck, fancy and fine leathers, watches and clocks (cheapest grades), porcelain ware, tourist's novelties, stencils and office

sundries, photographic supplies and kodaks, phonographs, hams, bacon, and lard, and tobacco.

BRITISH EXPORTS TO THE ISLANDS

From 25 to 30 steamers leave United Kingdom ports every month for South Africa, calling at certain island ports en route, thereby affording, says the British and South African Export Gazette, incidental opportunity for supplying the islands of Madeira, Canaries, Ascension, St. Helena, and Mauritius, which altogether absorbed in 1905 British products to the value of $6,669,143. To this may be added $784,700 of foreign and colonial merchandise. Of the exports, however, $1,842,203 was for coal. Exclusive of coal, British merchandise to the amount of $2,624,917 went to the Canaries, $1,640,643 to Mauritius, $275,852 to Madeira, $128,805 to St. Helena, and $13,480 to Ascension.

Altogether the absorption of United Kingdom produce and manufactures by these markets included textile goods to $1,325,255, of which nearly two-thirds were cotton; fertilizers to $836,581, chiefly to the Canaries and Madeira; metal manufactures to $535,600, one-third of which was for machinery; nonedible oilman's stores $373,300, soap accounting for more than half this sum, and candles for two-thirds of the remainder; and provisions to $238,550. In miscellaneous goods there were carriages, china and glassware, furniture, hats, drugs, chemicals, paints, leather goods, and telegraph material.

GERMAN GAINS.

AN ENGLISH JOURNAL RECOUNTS BRITISH AND AMERICAN LOSSES.

The British and South African Export Gazette prints an article under these headings: "Wake up, England! The secret of Germany's success in Africa. Discouragement under depression robs Great Britain and America of trade." The Gazette says:

The revelation of the extent of Germany's advance in the South African market has been received with the utmost surprise. It was supposed by few that Germany was actually increasing her trade with the subcontinent at a moment when all other countries were reducing their shipments, and especially that Germany's augmented business was confined practically entirely to strictly competitive goods, but such was the case. Ten years ago the United Kingdom's share of South African trade was over 70 per cent of the total and Germany's stood at a fraction under 5 per cent. For the statistical year ending June 30 last, the respective shares of the two competing countries were 58 and 7 per cent, and as the total trade of competing foreign countries has only risen in the period referred to from 18 to 20 per cent, it is evident that Germany is solely responsible for this advance and has even secured a fractional margin beyond. Germany alone increased its shipments to the South African market during the year ending June 30 last, and this, notwithstanding the fact that it shared to the full in the general decline of foreign trade to the extent of nearly 50 per cent in 1904. In fact, it is only now that Germany is standing out prominently from the ruck of foreign competition, displacing for the first time the United States from the position of England's chief rival,

though large shipments of noncompetitive goods still give America the second highest of total trade.

GERMANY GAINS WHAT BRITAIN LOSES.

The British share of the trade in the South African market for the entire year 1905–6 is given at 58 per cent, and for the second half of the year is only 55 per cent. The vogue of electricity has undoubtedly placed many valuable orders in Germany's hands, and, of the tube mills installed on the Rand, a considerable number have been manufactured in the workshops of Germany, but neither of these facts is of sufficient significance to account for a practical doubling of that country's shipments to South Africa during the past eighteen months. Agricultural and pastoral industries have probably experienced more development than any other in the colonies of late, but here also the enterprise of England and American makers of machinery and implements has at least equaled that of German firms. German manufacturers and shippers have scored in a whole series of standard lines. With the depression in South Africa otherwise clear-sighted business men in England—and America, too—were induced to suspend effort at the critical moment, when only persistency was required to reap the reward of previous enterprise. Here was a market absorbing merchandise—chiefly manufactured goods—to the value of nearly $160,000,000, which British manufacturers gave up hope of, declaring, in utter ignorance of the facts, that there was no trade doing with South Africa. Those who were wise enough to ignore the popular cry maintained their enterprise, studying the changed conditions and seizing the opportunities which continued to arise. That was the policy followed in Germany. The result is apparent to-day, when the latter country is doing a volume of trade practically equal to that which it possessed in the boom year of 1903, while Great Britain, the United States, and Belgium all stand in a worse position even than in 1904.

TEUTON PERSISTENCY COMMENDED.

Teuton persistency has, in fact, emerged from the trial with overwhelming success at the expense of British caution and American opportunism. It is true, of course, that German exporters have the substantial assistance of their Government in the form of subsidized rail and ocean freights, and a keen consular service. They do not hesitate to heavily subsidize agents or to establish subsidiary firms in the chief South African centers, and in every way they demonstrate their policy of tightening their grasp upon a weakening market, so that they in the worst alternative are the least sufferers. This is the policy, too, be it said, of the best English and American firms, many of whom we could mention as having more than maintained their hold on South African business throughout the recent years of crisis. The decrease in the British share of South African trade with the corresponding rise in the German share is rendered the more serious and incomprehensible by the fact that the change has occurred since the granting of a tariff privilege of 2½ per cent, lately raised to 3 per ce on the manufactures of the United Kingdom. The requirements of great country like South Africa can not in any circumstances fall below a certain high standard, no matter what internal crisis may be suffered, and it is always a trade worth many millions sterling to handle. Germany has read the lesson aright.

EUROPE.

KINGDOM OF BELGIUM.

ACTIVE AND PROSPEROUS MERCANTILE NATION.

INCREASE IN IMPORTS AND EXPORTS—AMERICAN SALES OPPORTUNITIES—THREE IMPORTANT CITIES.

The business life of Belgium, in its relation to American trade, is portrayed in a report from Special Agent A. B. Butman. The status there of various manufactured products of the United States is discussed, and suggestions offered as to extending their sale. The report follows:

The Kingdom of Belgium has an area of 11,373 square miles and a population of 7,000,000, mainly divided between the Walloon and Flemish races, the latter comprising about five-eighths of the whole. These figures show Belgium to be the most densely populated country in the world.

The year 1905 marked the seventy-fifth anniversary of Belgian independence, and her statistics show an enormous increase in prosperity during this period. In 1831 the total commerce of Belgium amounted to $37,766,165. Of this amount $18,995,775 represented imports and $18,770,390 exports. In 1905 the figures reached a total value of $978,825,000, the imports being $556,853,000 and the exports $421,972,000. All figures given refer to what is known as special commerce—i. e., the actual trade of the country, not including transit trade. In 1905 the Belgian trade with Germany (German Customs Union, including Germany proper and the Grand Duchy of Luxemburg) show the following values: Imports, $79,542,376; exports, $110,780,590. The trade with France for the year 1905 was as follows: Imports, $100,005,305; exports, $72,045,261. The value of the Belgian import trade with the United Kingdom was $73,276,359, the export trade $72,210,081. The trade with Netherlands for 1905 was as follows: Imports, $47,672,324; exports, $50,719,349; these being the countries contributing most largely to the great volume of Belgian trade. The following are the Belgian statistics of the trade between Belgium and the United States for the year 1905: Imports, $38,478,741; exports, $25,882,445.

GOODS FROM AMERICA.

The principal goods imported from the United States are foodstuffs and raw materials for its industries. In manufactured articles the imports were mainly agricultural implements, machinery (metal and

woodworking), bicycles, builders' hardware and tools, typewriters, sewing machines, and boots and shoes (leather and rubber).

During the year 1904 Belgium imported from the United States agricultural implements to the value of $231,021. The importation for 1905 fell to $176,821. This decrease was not owing, I am informed, to a dissatisfaction, but to the considerable stock available from the preceding year. American farming implements are in good favor, but the European manufacturer is alive to American competition, and will spare no efforts in introducing his goods, neither will he hesitate to spend a reasonable amount of money in doing so.

The American made bicycle finds a market in Belgium. In 1904 this country imported from the United States bicycles and parts amounting to $52,988, in 1905 to $37,328, the reason for the decrease being largely an overstocked market. The import duty on bicycles is 12 per cent ad valorem and consequently prices should be made as low as possible to compete with the domestic manufacturer, who is able to produce his goods at very low cost, owing to the low rate of wages paid. The American bicycle, fitted with single-tube tires, is well liked, but the manufacturers should always build strong machines, as in many districts there are no cycle tracks and the wear on a wheel over Belgian stone roads must of necessity be very severe.

In builders' hardware Belgian imports from the United States show the following figures: 1904, $218,471; 1905, $214,937. The American typewriting machines find a fair market, and imports show the small increase from $140,193 in 1904 to $140,519 in 1905. In sewing machines the exports to this country rise and fall largely according to the demand of the market. The duty on machinery of all kinds including automatic tools is, when made of cast iron, 40 cents; of iron and steel, 80 cents; of copper or other metal, $2.40 per 100 kilos (kilo = 2⅕ pounds); of wood, 10 per cent ad valorem.

HOURS OF LABOR.

The hours of labor in Belgium are very long. The laborer commences work at 6 a. m. and ceases work at 7 p. m., with the usual breaks for meals. He is paid according to the trade in which he is employed, on the average 7 cents to 9 cents per hour for ten hours and for additional two hours 25 per cent increase, making his daily wage from 84 cents to $1.08 for twelve hours. Children begin their life work at the age of 12 years; and as regards hours for child labor, the law states that no child under 16 years of age shall be kept at work for more than twelve hours a day. A Belgian statistician estimates the average earnings of an artisan at about $160 per year, which includes child labor. I am informed that there are numerous factories in this country which have been established by British firms owing to the very low rate at which labor may be secured here.

GOOD SALES LINES.

The following are American manufactured articles for which a market might be found in Belgium, with rate of duty given, the calculations being based on the franc at 20 cents:

Advertising novelties, duty variable; athletic goods, 13 per cent ad valorem; bedsteads (metallic), furniture 10 per cent, rough finish 4 per cent, brass, 10 per cent ad valorem; boots and shoes, 10 per cent ad valorem; electrical supplies, variable;

DAMASCUS GUN BARRELS.

BELGIAN METHODS OF IMITATION—DIFFICULT TO DETECT.

Consul J. C. McNally writes that the Damascus gun-barrel manufacturers of Liege have tried from time to time to influence legislation to compel the manufacturers of the imitation brand to mark on their barrel the nature of their design. The consul continues:

The firearm manufacturers, who, in the make-up of their guns use both the genuine and imitation, opposed such legislation, with the result that one must distinguish for himself whether he is purchasing the real or imitation article. I have been asked from time to time by American firearm manufacturers regarding the manufacture of the imitation Damascus barrel, and if the local manufacturers could supply them with a certain number, etc.

When the gun is manufactured in Liege and not having a genuine Damascus barrel attached, it goes to the proof station with a plain barrel. If, after the test, the manufacturer desires to have an imitation barrel he calls into use some silk paper and takes the design of an original Damascus barrel. By means of a decalcomania transfer it is attached to the plain barrel by the use of certain acids, which are held as secret. No separate barrels are ever covered with the imitation design, but only when attached to a gun. Double-barreled shotguns are usually the only sort thus decorated. It is quite a difficult matter to distinguish between the real and imitation Damascus barrel, and to make a test it would be necessary to erase the design. If an imitation, no acid in the world will restore it, but if the Damascus is genuine the application of sulphuric acid will immediately bring out the original design.

RETAIL DEALERS EASILY DECEIVED.

The gun manufacturers say that the trade demands both sorts of Damascus, and while it is certain that the importer will know which article he is buying, the retail dealer could easily be imposed upon unless he were an expert in the business. No doubt the ordinary person has been often under the impression that he possessed a genuine Damascus while the opposite was true.

It is impossible to obtain statistical information as to the number of guns of the imitation Damascus barrel exported from Belgium, for while an accurate account is kept at the proof station of all guns and barrels undergoing the test, the same being compulsory before the gun can be sold, the barrel being designed after the test, no intelligent estimate can be made. One of the dealers, however, informed me that no less than 200,000 annually of these barrels bore the imitation mark. Most of the imitation Damascus barrel guns are sent to the United States and South America. Of the latter section Brazil is the largest buyer, while Argentina is a close second.

The steel imitation Damascus barrel can be bought as cheap as 50 cents, while the most ordinary of the genuine will command from $1 to $1.25. The manufacturers of firearms emphatically declare that not only they, but those between the manufacturer and the consumer, declare the nature of the barrel, while the original Damascus makers are as emphatic in their declaration that a deception is practiced somewhere along the line. It is said, however, that the imitation brand is to be found on cheap guns only.

AGGREGATE FOREIGN COMMERCE.

STEADY INCREASE IN TRANSACTIONS WITH OTHER COUNTRIES.

Consul-General G. W. Roosevelt, of Brussels, reports on the commercial movement of Belgium as follows:

The imports in general commerce into Belgium in 1905 amounted to 23,371,200 tons, valued at $963,050,700, an increase in weight of 1,908,700 tons, and in value $108,755,500 over 1904. The exports in general commerce from Belgium in 1905 amounted to 19,331,400 tons, valued at $821,408,000, an increase of 334,000 tons and of $78,531,700 over 1904.

The imports in special commerce into Belgium in 1905 amounted to 19,668,500 tons, representing a value of $592,181,900; the exports therefrom in special commerce amounted to 15,638,800 tons, valued at $450,404,100. This is an increase in imports of 1,486,600 tons and in value of $55,217,300; in exports a decrease of 73,100 tons is shown in weight, but in value there was an increase of $29,027,200, as compared with 1904.

The imports into Belgium in 1905 from the United States amounted to 932,929 tons valued at $46,747,688, against 823,547 tons, valued at $42,904,093 in 1904. The exports to the United States in 1905 amounted to 345,611 tons, valued at $17,812,935, a decrease of 51,588 tons, but an increase in the value amounting to $1,152,403, as compared with 1904. The leading articles of imports from and exports to the United States in 1905, by weight, are shown in the annexed table:

Article.	Imports.	Exports.	Article.	Imports.	Exports.
	Pounds.	*Pounds.*		*Pounds.*	*Pounds.*
Animals, live	5,706,000		Minerals	43,753,600	29,422,800
Brass	13,296,800		Oil:		
Breadstuffs	712,590,200		Petroleum	311,075,600	
Cement		128,902,400	Vegetable	30,014,600	
Chemical products	29,255,600	54,546,200	Provisions	84,834,200	17,633,000
Coal		433,351,600	Rags		75,939,600
Cotton	72,600,000		Rosin, etc	103,974,200	
Cotton goods		7,253,400	Rubber, crude	583,000	4,774,000
Drugs	22,235,400	20,105,800	Starch	2,688,400	
Dyes and colors	2,976,000	27,482,400	Stone, all kinds	95,524,000	
Earthenware		12,680,800	Textiles	43,753,400	27,737,600
Fruit	11,030,800		Vegetables	285,795,400	5,313,000
Glass		46,224,200	Wine		6,210,600
Hay and forage	65,197,000		Wood, and manufrs of	210,163,800	16,768,400
Hides and skins, raw	569,800	19,894,600	Wool, and manufrs of	349,800	2,622,400
Iron and steel	34,566,400	128,633,000			

The exports of plate glass in 1905 amounted to 80,291,684 pounds, an increase of 34,138,356 pounds over 1904. Of this amount England took 37,503,772 pounds; United States, 8,420,071 pounds; Netherlands, 6,060,791 pounds; Canada, 3,076,724 pounds; Japan, 2,195,138 pounds; Argentina, 2,794,530 pounds, and Australia 2,322,355. The exports of window glass amounted to 335,130,627 pounds, an increase of 213,522,981 pounds over 1904. The leading countries making purchases were, England, 104,930,166 pounds; Japan, 25,875,021 pounds; China, 25,541,996 pounds; United States, 21,745,852 pounds; Netherlands, 22,612,982 pounds; Canada, 21,218,274 pounds, and India 19,036,567 pounds.

GHENT LUMBER TRADE.

PRICES ARE FIRM WITH NO STOCKS ON HAND.

Consul W. P. Atwell, of Ghent, reports that the lumber trade in that district of Belgium has not proved favorable to importers during the past year.

Transactions during the first six months were scarce and prices remained unchanged. About the middle of the year, on account of important purchases made in the north by other countries, stocks were rapidly sold out. A few of the better dimensions have become very scarce. The demand being regular, prices consequently remained firm. From this time on large quantities of lumber were sent to Ghent. The importation of lumber through the port of Ghent in 1905 amounted to 17,304,229 cubic feet against 22,472,059 cubic feet in 1904 and 11,002,840 cubic feet in 1903. Of the imports last year 8,525,987 cubic feet were sawed northern and pitch pine, 4,740,544 cubic feet of same unsawed; 3,685,022 cubic feet of trees, stumps, and mining lumber; 294,238 cubic feet of sawed oak and other cabinet wood, and 58,438 cubic feet of same not sawed.

The meetings held at Copenhagen to increase freight rates on lumber did not altogether prove a success, as these rates are generally regulated according to quantities offered and the demand therefor. It must also be borne in mind that the recent political troubles in Russia have contributed extensively to the decrease in importations of lumber. Communications and shipments from Riga, the principal lumber center, at one time completely ceased. It may, however, now be said that prices are steadily increasing and are at the present time very firm; there are no stocks on hand, and the future seems bright.

FRANCE.

NATIONAL TRADE LIFE.

COMMERCIAL CONDITIONS AFFECTING AMERICAN INTERESTS.

Special Agent A. B. Butman submits the following report from Calais as the first of a series on trade conditions and industrial progress in France:

The customs duty of the country favors domestic industries, which are also successfully striving to increase their foreign trade; in fact, the valuation of this country's exports is practically as great as that of her imports. The reputation for French skill in manufactures is international. Foreign goods are discriminated against, and American manufactured goods coming into the market are assessed at the highest rate of duty.

The total value of exports from France to the United States for the fiscal year 1905 was $88,417,075; for the fiscal year 1906 was $107,240,548; showing an increase for 1906 of $18,823,473. The total value of imports from the United States for the calendar year 1905 was $107,023,132. [The American-declared exports to France for the calendar year 1905, according to the Bureau of Statistics, were $89,988,375, and these included a large share of the $12,000,000

exports which Switzerland took from the United States. The imports from France for the fiscal year 1905 were $89,830,445, and for 1906 $108,415,350.]

By far the largest amount of French imports from the United States are in raw materials, unmanufactured cotton being imported to the amount of $55,282,148, copper (crude) to the amount of $10,043,708. [American declared exports of raw cotton to France for the fiscal year 1905 aggregated $35,922,803, and for 1906, $45,112,034, but several millions of this went on to Switzerland.] These materials are admitted free of duty. In manufactured goods machinery holds the highest figure, $6,721,418, with a duty for 100 kilos (220 pounds) variable from $2.31 to $13.50, according to the size, weight, materials of which the machine may be built, and the degree of finish. The United Kingdom, Belgium, Germany, and the United States are the countries entering most largely into the great volume of the import and export trade of France.

LACES OF CALAIS.

Calais is a town of 70,000 inhabitants and is chiefly important for its lace industries, coal and lumber trade, and the great amount of traffic with England. It is estimated that about 260,000 people pass through the town annually. In machine-made laces the town is one of the world's greatest centers, nearly the entire working population being employed in the industry besides large numbers outside the town, who, in their homes, do the work of clipping of the surplus threads left in weaving. The lace manufactories number 400 with 3,000 machines, and their output varies from the finest to the ordinary qualities. I was shown in one of these factories specimens of real hand-made laces for comparison with the mechanically manufactured product of the same design. In many instances, notably in the finest Mechlin and Valenciennes, the imitation was scarcely inferior in appearance to the real, the apparent difference showing only in the plain net, which is more evenly woven in the mechanically made lace. The present perfected product of this industry is the development of two centuries.

The following figures from the British consulate at Calais show the exportation of lace and tulle from this port for the year 1905. Values are stated in British pounds sterling:

Silk	£928,837
Cotton	2,056,461
Wool	7,423
Flax	5,181
Total	2,997,902

The American consul, J. B. Milner, gives the value of lace exported from Calais to the United States at $7,420,610 for the fiscal year 1906, an increase of $2,500,000 over the previous year. This lace industry is one which in my judgment might be profitably introduced in the United States. I base my statement upon information received from authentic sources. The monthly profit from a Calais lace machine is a very large one to the manufacturer. It would seem evident that the industry if introduced to the United States could not fail to benefit the manufacturer, the employer, and the consumer. The latter at present pays 60 per cent duty for his foreign purchase.

COST OF LIVING—TIMBER AND BICYCLES.

The expense of living in this French town is high even as compared with an American city of much larger size, as the following prevailing prices of necessary articles of diet will show: Eggs, 5 francs ($1) per dozen; chickens, 5 to 8 francs ($1 to $1.60) each; beef for roasting, or steak, 2 francs (40 cents) per pound for best quality; ordinary quality, 1 franc 50 centimes (30 cents); mutton, 1 franc 50 centimes (30 cents); bread, 75 centimes (15 cents) for 4 pounds.

Vegetables are, for the most part, inexpensive, and accordingly form the greater part of the diet of the peasantry and lower classes, supplemented by soups, the latter being the staple article of sustenance of these classes throughout France.

The timber trade of Calais is carried on with Russia, Norway, Sweden, and the United States. The trade with the United States is not large and is mostly in pitch pine of which 5,294 tons were imported in 1905.

A large English firm has established a factory in Calais for the manufacture of bicycle accessories for the French market.

DEVELOPING ELECTRIC POWER.

MILLS AND FACTORIES CHANGING TO NEW MOTIVE ENERGY.

Consul Chapman Coleman, of Roubaix, shows the tendency in France toward the utilization of electricity for industrial purposes, which can now be obtained at reasonable prices, running as low and lower than 1 cent per horsepower per hour. Mr. Coleman writes:

In connection with an industrial exposition recently held in the neighboring city of Tourcoing several French authorities in electrical science have delivered instructive lectures on the more extended use of electrical energy in industrial establishments in France. While its industrial use in this region is yet limited, its contemplated larger employment in a section of France teeming with factories whose enormous varied productions, of which a considerable amount is exported to the United States, can not but be regarded with great interest in view of the increase in that output to be expected from a greatly extended application of the more economic method of manufacture by means of electrical energy.

This Department of the North, with an area of 2,205 square miles and a population of about 2,000,000, exported to the world in the calendar year 1905 products of the value of about $88,000,000 and to the United States of about $2,500,000.

The local press says that the putting in full operation of certain great stations, already established or in process of construction, for the development of electrical energy and its transmission to manufacturing enterprises, together with further anticipated activity in this direction, will soon bring about a veritable revolution in the industries of this region. The success, notwithstanding the relatively high prices demanded, recently achieved by the "Société Lillois d'Éclairage Electrique," through the increased capacity of their plant, which has greatly stimulated competition in this domain, has led to the establishment in the city of Lille or its environs of four further plants of large capacity for the production of electrical energy. The

latest is a plant of 25,000 horsepower about to be constructed at Marquette.

It is also reported that a fifth enterprise will obtain the supply of electrical energy needed for its customers from certain mining companies of the Department of the Pas-de-Calais.

SCALE OF PRICES.

While it will not be practicable to make general competitive price comparisons, an idea of relative cost may be formed from a comparison of proposed prices for electrical energy in the annexed table with the cost prices given in the following examples of motive power generated by the ordinary means of steam and gas: (1) For an industry whose continually varying needs are from 25 to 100 horsepower, the industry considered being a printing establishment, the cost price per kilowatt hour is per machine 0.19 franc; (2) for an industry constantly requiring 100 horsepower, the industry considered being a spinning mill, the cost price per kilowatt hour per spinning frame is 0.146 franc (franc=19.3 cents).

The new electric companies have established price schedules, the figures being essentially the same for all. These are based upon a progressive decrease in cost, beginning with a charge of 0.20 franc per kilowatt hour for a smaller horsepower and lowered to a charge of 0.05 franc and less per kilowatt hour for subscribers, for a 5 horsepower or more, utilized during a stated number of hours.

The prices given in the following table are stated by the companies on the basis of the reckoning that the hours of utilization are equal to the kilowatt hours consumed, divided by the kilowatt hours installed:

Power installed in kilowatts.	Price in francs per kilowatt hour.			
	For the first 1,000 hours of utilization.	For the 1,500 hours following.	For the 2,000 hours following.	For more than 4,500 hours.
Less than 3 kilowatts	0.20	0.20	0.20	0.20
From 3 to 6 kilowatts	.20	.14	.09	.05
From 6 to 10 kilowatts	.19	.13	.085	.05
From 10 to 15 kilowatts	.18	.12	.08	.05
From 15 to 24 kilowatts	.17	.115	.075	.05
From 24 to 36 kilowatts	.16	.11	.07	.05
From 36 to 50 kilowatts	.15	.10	.07	.05
From 50 to 80 kilowatts	.14	.095	.065	.05
Above 80 kilowatts	.13	.09	.06	.05

For convenience of comparison it is to be noted that a horsepower is equal to 736 watts (0.736 kilowatt), and that consequently the kilowatt equals 1.35 horsepower. It should be added that for energies of 500 horsepower or more these companies have already entered into contracts at prices lower than 0.05 franc per kilowatt hour.

LOSS BY ELECTROLYSIS.

FRENCH DISCOVER SERIOUS LEAKAGE TO UNDERGROUND CONDUITS.

Mr. Coleman also says that important works of excavation just begun in the busiest part of that city have attracted much public attention. He writes:

Some two years ago the state administration of the post-office and telegraphs caused extensive excavations, attended with great disturb-

ance of traffic in important thoroughfares, to be made in the streets of Roubaix, with a view to the replacement of its then existing aerial by a subterranean telephone system. The result of this labor, it now appears, is the unpleasing prospect of the work having to be done all over again. At the bottom of the deep trenches, which have now been excavated in order to ascertain the nature of the disturbance in telephonic communication recently observed, the discovery has been made that the two long lines of leaden piping, buried there in the confident expectation that for the next fifty years or more there would be no need of renewal, have, as affirmed by scientists, become practically unserviceable.

The disillusion appears to be complete. The reckoning had been made without consideration of what pernicious vagrant electric currents might accomplish. These, it seems, descending from the trolleys of the tramways to the rails, were, by a process of infiltration of the soil beneath, gradually exercising an injurious effect through the mysterious operation of electrolysis upon the conduits for water and gas. It further appeared that the neighboring telephone cables, of 224 strands, inclosed in leaden tubes, were, in their turn, being destroyed by these vagrant currents. This process of destruction had for some time past been indicated by certain disquieting observations, and now the opening trenches have established the nature and revealed the extent of the damage effected. The leaden tubing and the metallic cables have suffered irremediably, and are fit only for the waste heap. But for the exceptional dryness of the past summer electrolysis would have been precipitated by humidity, and certain quarters of the city would no doubt before this have been wholly deprived of telephonic communication. Such a condition, at least, will have been averted by these timely discoveries.

While it is claimed that this lamentable condition applies only to certain quarters, it would appear, from present indications, that the entire lines, running from the Central Bureau of the Roubaix-Tourcoing telephone system to the streets La Sagesse and de L'Ommelet, have suffered severely from electrolysis, and the declaration from certain sources that other lines are unaffected should be received with skepticism.

EXPENSIVE REMEDY—WHO WILL PAY COST?

In any case, the two lines in question will have to be replaced, and it is for this reason that new cables are now being laid. But this time, profiting by hard experience, precautions are being taken. The two leaden pipes containing the cables are now inclosed in large tubes of cast iron, resembling the conduits for gas, and while the vagrant currents are combating the cast-iron covering neither lead nor cables will be exposed to their ravages.

The new work will, of course, require great expenditure, and the question arises upon whom it will fall. The administration of posts and telegraphs will, no doubt, endeavor to impose it on the tramway company, declared by divers expert opinions to be the author of all the trouble. But the latter administration asserts anterior rights, in view of its installation having been made prior to that of the telephone cables, contending that the postal administration should, at the beginning, have adopted the precautions which they have deferred until now. In the end, the difficult question of the respective shares of the

cost to be borne by the one and the other administration will, no doubt, be determined by a process of law before the council of the prefecture at Lille.

LAW OF WEEKLY REST.

SUNDAY HOLIDAY AND LABOR AGITATION IN FRANCE.

According to Consul-General Frank H. Mason, of Paris, the industrial situation in France, which has been steadily growing more acutely sensitive during the past four or five years, has been still further aggravated by the enforcement of what is known as the "law of weekly rest," which was enacted and proclaimed by the President of the Republic on July 10, and after a heated and acrimonious discussion in the press and at the meetings of labor organizations of all trades and occupations was put into effect on September 1. Mr. Mason continues:

The law, like most French legislative enactments, is an elaborate and carefully drawn statute and comprises 18 articles, which were designed to cover every contingency that could be foreseen as likely to arise under the new restrictions. Its fundamental principle and purpose, however, is to ordain that working people and employees of all classes and conditions shall be entitled to and utilize one day in each week for rest and recreation. The law is compulsory in both directions—in that it compels the employer to grant freedom on one day in seven to his employees, and on the other hand it requires the employee to avail himself of the privilege thus offered. There is in each week one day on which he is forbidden to work, and article 2 of the law prescribes that, unless otherwise authorized, this day of rest shall be Sunday.

But it is also recognized that certain establishments and forms of business do not admit without serious difficulties of a simultaneous absence on Sunday of the entire working force, and for these it is provided that the employees may receive their rest days, individually or collectively, on other days of the week, so that a portion of the personnel of such establishments—including hotels, restaurants, and stores at which meat, bread, and other food materials are sold—may be continuously on duty.

SPECIAL EXEMPTIONS.

As an indication of the vast number of vocations which come under this category and for which special exemption and conditions have had to be provided in the enforcement of the law, the text of articles 2 and 3 of the statute which relate to that portion of the subject, is herewith translated:

Whenever it shall be established that simultaneous rest on Sunday by all the personnel of an establishment would be prejudicial to the interest of the public or compromise the normal working of such establishment, leave of absence for rest may be given either constantly or at certain periods of the year, and either individually or collectively, as follows: (*a*) Another day besides Sunday to all in the establishment; (*b*) from Sunday noon to Monday noon; (*c*) Sunday afternoon with compensatory rest one day in succession every two weeks; (*d*) in succession to all of the personnel or part of it. Necessary authorizations for these variations should be demanded and obtained conforming to articles 8 and 9 of the law.

ARTICLE 3. Weekly rest on days other than Sunday may be given in turn to employees of establishments belonging to the following categories: (*a*) Manufactories of food

products destined for immediate consumption; (*b*) hotels, restaurants, cafés, and places where drinks are sold; (*c*) tobacco and cigar stores, and shops where natural flowers are sold; (*d*) hospitals, asylums, pharmacies, dispensaries, and all stores where physicians and surgeons' supplies are sold; (*e*) bathing houses; (*f*) news dealers, bureaus of information concerning amusements, museums, and exhibitions; (*g*) libraries, lessees of seats, carriages and all means of locomotion; (*h*) offices of lighting plants, water supply and motive power; (*i*) transportation by land other than railroad, and work connected with embarkation of persons and baggage in ports or stations; (*j*) industries in which the material or product is subject to rapid alteration; (*k*) industries in which suspension of work would entail loss or depreciation of products in course of manufacture.

DIFFICULT ENFORCEMENT AND DISCONTENT.

From the foregoing provisions of the statute it will be apparent how large a proportion of working people, especially in cities and large towns, are employed at callings in which a general suspension of work on Sunday would entail serious loss to employers or inconvenience to the public. It will also be obvious that in attempting to frame a law and administrative system so elastic as to fit into all the diverse and complex conditions of daily life and still preserve a general day of repose on Sunday, the Government undertook a task of extreme and complicated difficulties. Add to this the fact that its enforcement has come at a time when the revolutionary socialistic element of the population is exceptionally restless and aggressive, and the friction and disorders of the past month are readily explained.

The law has fallen with especial severity on the large class of stores which cater to the trade of the working people, to whom Sunday, with its comparative leisure, has been hitherto a favorable time for expending the week's wages for clothing, groceries, and other personal or household necessities. In closing their shops on Sunday many of these small merchants find themselves obliged to give up an important part of their trade. Many dealers in certain articles which come within the categories above quoted have sought and obtained permission to keep open during certain hours on Sunday, while others, to whom similar permission has been denied, have felt unjustly treated and have resorted to hostile demonstrations against their more fortunate neighbors.

INTERFERENCE WITH INCOME.

There is also a large class of people, both employees and persons who work for their own account, to whom the giving up of one day in seven to rest, means an inevitable loss of a certain part of their income. In a country where earnings are generally small, and people have been trained and inured for generations to lives of industry and rigid economy, any interference with their habits of work naturally produces more or less friction and complaint.

It is yet too soon to attempt any definite estimate as to the effect of the new law upon the cost of production in the various important industries of France. That can not be determined until the disputes between labor and capital have been measurably settled and the relations between employers and employed adjusted to the rule of six days' work per week instead of seven.

WORKMEN PROTEST AGAINST WAGE LOSS.

The number of strikes during the first twenty days of September has surpassed all precedent, and they have mostly had for their motive the question whether the cost of the enforced day of rest each week shall be borne by the workman or by his employer, or whether it shall

be shared between them. In other words shall the employer pay the same wage for a shortened weekly period of labor, or shall the employee submit to a proportionate reduction in his earnings? How can the new system be so adjusted as to affect equally and with justice the wages of the laborer or operative who works by the piece or day and those of the employee who is paid a fixed salary by the month or year?

Meanwhile intelligent public opinion frankly concurs in the wisdom of the principle on which the law is based, and believes that any reduction of incomes which may be at first entailed by the new system will be in the end compensated by the improved physical condition and augmented working capacity of the people.

TRADE OF BORDEAUX.

INCREASED MERCHANDISE SHIPMENTS TO THE UNITED STATES.

Consul D. I. Murphy reports that the total declared exports from the Bordeaux consular district to the United States for the fiscal year ended June 30, 1906, amounted to $6,229,713, against $4,936,729 for 1905.

Of these exports, food products represented a value of $3,662,095, raw materials $2,129,896, and manufactured products $437,722. The greatest increases were in raw materials, rubber, skins, talc, animal hair, and rough boxwood handles. The shipments of boxwood handles for umbrellas increased from $16,767 in 1905 to $55,829 in 1906. Sheep, goat, and lamb skins increased from $526,910 to $878,400, and animal hair, of which none was exported in 1905, amounted to $39,895 in 1996. The notable losses in exports to the United States in 1906, as compared with the previous year, were: Potash, $350,468; brandy, $16,888; preserved fruit, $28,097; olive oil, $56,914; still wines, $63,344; and nut oil, $29,310.

The imports into Bordeaux from the United States during the calendar year 1905 amounted to $5,673,209, an increase of $160,799 over 1904. The principal articles were: Agricultural machines and machinery, valued at $1,517,903; staves and timber, $1,230,980; leaf tobacco, $961,652; petroleum, $560,123; provisions, $215,320; breadstuffs, $474,915; cottonseed oil, $195,108; vanilla, $139,335; feathers, $107,221; and hardware, $32,377. The declared exports to the United States during 1905 were valued at $3,227,071. The chief articles of export consisted of nuts, valued at $97,902; preserved fish, $142,245; crude rubber, $526,887; wine, $257,404; potash, $424,559; paper, $215,673; leather goods, $154,565; lithographic prints, $101,354, and rugs, $104,205.

The total imports into Bordeaux from all countries during the calendar year 1905 amounted to $53,573,820, a decrease of $3,702,780, compared with 1904. The leading articles were lumber, to the value of $4,196,600; wool, $5,023,000; fish, $4,043,600; chemical products, $1,960,800; provisions, $2,663,800; breadstuffs, including rice, $2,109,000; cotton tissues, $1,839,600; coal, $1,780,000, and leaf tobacco, $1,300,400. The total exports to all countries in 1905 were valued at $80,675,624 and consisted of the following principal articles: Wine, $19,787,544; fruit, $3,250,000; wool, $2,884,000; leather goods, $3,754,800; cotton tissues, $3,960,000; pottery and glassware, $2,090,200; lumber, $2,185,800; jewelry and silverware, $4,659,280, and paper, books, and cardboard, $1,081,400.

NEW ROAD DUST REMEDY.

SEA SALT AND SEA WATER PROPOSED AS CHEAP METHOD.

Consul Murphy further writes that considerable attention has been attracted of late to the problem of combating road dust, which is not only inconvenient and unpleasant, but has been found deleterious to health.

The Medical Society of Bordeaux, in a recent publication, called attention to the evils arising from this cause and the number and nature of diseases directly traceable thereto. Tar seems to have many advocates as a layer of dust, but its use has been found to have some disagreeable accompaniments. Sea salt and sea water have been proposed as cheaper and more effective remedies than tar. The idea of using sea salt seems to be based upon its well-known property, especially when in large grains, of absorbing the moisture of the atmosphere. It is this property, it is claimed, that will dampen the dust and thus prevent its dissemination.

Doctor Carl, an eminent chemist of Bordeaux, exploits the merits of sea water. He mentions the fact that when salt extracted from sea water becomes damp it is because of the impurities it contains (pure salt not being hygroscopic), carbonate of magnesium and calcium being the principal impurities which provoke this liquefaction.

It has been suggested that these salts might be put into the ordinary water used for sprinkling the roads. As prepared in the laboratory, however, or as found as residuum in the factory, carbonate of magnesium and calcium have a market value which would make their general use very expensive.

Doctor Carl points out that these salts abound in sea water, from which, if evaporated in great shallow trays by the rays of the sun, the different salts crystallize in order of insolubility, chloride of sodium being the first to separate, while the others, more soluble, accumulate in the remaining water. A few quarts of this "mother sea water," having no value, mixed with a ton of ordinary water, Doctor Carl declares, will be found most efficacious in laying the dust and preventing its dissemination. The expense would seem to be trifling. No disagreeable odors would offend the nostrils and no deleterious effects follow its use.

In American places not far from the sea, in such localities as New York, Boston, Philadelphia, New Orleans, and San Francisco, the method advocated by Doctor Carl might be found both inexpensive and beneficial.

FRENCH MONEY IN RUSSIA.

INDUSTRIAL INVESTMENTS SMALLER THAN REPORTED.

Consul John C. Covert, of Lyon, quotes a well-known French news bureau, which has recently had an official investigation made in St. Petersburg of the amount of money invested by Frenchmen in Russian industries owned by Frenchmen or in purely Russian business concerns.

The object of this examination was made in order to correct the many exaggerated statements which were going the rounds of the press on the subject. The result has been a general surprise, as the

real amount invested is found to be much less than was usually supposed. The amounts are as follows:

Companies and business:	
45 mining and metallurgy	$96,760,000
9 mechanism and metallurgy	11,380,000
10 textile industry	9,860,000
5 chemical products	2,660,000
6 material for building	3,180,000
3 perfumery	1,500,000
4 electricity and gas	4,120,000
1 tramways	700,000
3 banks and insurance companies	6,940,000
1 sugar mill	580,000
3 divers businesses	660,000
Total	138,340,000

This is about one-fifth of the sum usually named as invested in Russia, and it is generally accepted as correct. To this sum must be added about $20,000,000 invested in Belgian industries in Russia by French capitalists and a much larger sum invested in bonds of the Russian Government. The unsettled condition of Russia has given rise to no little uneasiness on the part of French investors in that country. A widespread fear has existed that the prevailing disorder would result in a suspension of business in the industrial concerns in which this large sum was invested and cause a consequent stoppage of interest.

GERMANY.

EMPIRE'S FOREIGN COMMERCE.

RAPID INCREASE AND PROPORTION OF VARIOUS COUNTRIES.

Consul-General Richard Guenther sends from Frankfort a concise statement, giving the total value and sources of the foreign trade of the German Empire for the last five years, as follows:

Year.	Imports.	Exports.
	Marks.	*Marks.*
1905	7,436,300,000	5,841,800,000
1904	6,854,500,000	5,315,600,000
1903	6,321,100,000	5,130,300,000
1902	5,805,800,000	4,812,800,000
1901	5,710,300,000	4,512,800,000

NOTE.—Mark=23.8 cents.

The percentage of the chief supplying countries was, for—

Countries.	1905.	1904.	1903.	1902.	1901.
United States	13.5	13.8	14.9	15.7	18.2
Russia	14.7	11.9	13.1	13.1	12.6
Great Britain	10.5	14.0	13.2	10.5	11.5
Austria-Hungary	10.4	10.7	11.9	12.4	12.1
France	5.5	6.2	5.4	5.3	4.9
Argentine	5.0	4.9	4.3	3.5	3.5

The percentage of the chief purchasing countries was, for—

Countries.	1905.	1904.	1903.	1902.	1901.
United States	9.3	9.3	9.1	9.3	8.5
Great Britain	18.1	18.7	19.3	20.1	20.3
Austria-Hungary	10.2	11.0	10.3	11.1	10.9
Netherlands	7.7	7.9	8.2	8.4	8.3
Switzerland	6.3	6.2	5.9	5.9	5.9
Russia	6.3	5.9	7.4	7.1	7.1
Belgium	5.4	5.2	5.2	5.4	5.2
France	5.0	5.2	5.3	5.3	5.5

TRADE WITH RUSSIA.

The Association of Representatives of Russian Commerce and Manufacturing at St. Petersburg has made a compact with the German-Russian Trade Association of Berlin, whereby both organizations pledge themselves to support each other in their endeavors to promote trade between Russia and Germany and to join their interests.

The Russian association comprises the large majority of commercial bodies, trusts and syndicates, and of the manufacturing circles of Russia. The German-Russian Trade Association at Berlin counts 50 German Chambers of Commerce and 12 other commercial associations besides nearly all German firms having business connections with Russia among its membership. It is confidently expected that the trade relations between the two countries will be much increased by this union of these great commercial associations.

MAGDEBURG'S FOREIGN TRADE.

EXPORTS TO AMERICA INCREASE—AMERICAN FRUIT DIFFICULTY.

Consul F. S. Hannah, in a semiannual report from Magdeburg, shows an increase of nearly $1,000,000 in exports to the United States from that German district for the last half of 1905 over the same period of the previous year. He writes:

The exports from Magdeburg to the United States for the last half of 1904 amounted to $4,920,653, while the exports for the last six months of 1905 amounted to $5,768,817. This increase is shown in the large export of leather gloves, glove leather, commercial fertilizer, sugar, beet seed, and sauer kraut. Other exports showing small increases, or the normal quantity, were chicory, canary birds, accordions, machinery, earthen and enameled-iron ware, fusel oil, Epsom salts, copper, copper scale, tin, and zinc dust.

The general exports of refined sugar suffered through Russian competition, as the Russians, owing to the Brussels convention, were able to supply cheaper sugar to Norway, the Orient, and countries bordering on the Mediterranean.

California prunes, owing to the good European harvest and a large supply of the 1904 crop being still in the market, did not command as high a price as the small harvest in America would seem to have warranted. The price varied from $16.89 in July to $17.85 in December, laid down in Hamburg, per 100 kilos (220 pounds) in 27-pound boxes, Santa Clara quality, 30–40 prunes per English pound.

The inability to secure American apples in the fall of 1905 resulted most disastrously to several well-known firms of this city. Early in

the year apples were quoted at Hamburg for delivery in October and November at $14.52 per 100 kilos, and as a small production was predicted for America, large orders were placed at these figures. However, as the time of delivery approached, the inability to secure apples in America had advanced the price on the open market to $23.08 per 100 kilos. In spite of this fact the two leading business houses representing American firms tried to bear the market by still offering delivery at the prices quoted in the spring; this only served to delay the crash until the day for delivery, when these firms, failing to receive the apples from America, were forced into liquidation. The local merchants, in order to make their sales good, after denouncing this wild-cat speculation, were forced to buy in the open market at the prevailing high prices, thereby suffering very severe losses.

The prevailing high prices for domestic bacon created a large demand for American bacon.

AIX LA CHAPELLE.

TRADE WITH UNITED STATES.

Consul Pendleton King furnishes the annexed list of exports from Aix la Chapelle to the United States during the year 1905:

Articles.	Value.	Articles.	Value.
Agate buttons	$17,226	Pergamum paper	$38,129
Beer	1,977	Plain basic photographic paper	269,518
Bleaching powder	72,667	Printing paper	19,700
Borate of manganese	1,063	Steel	88,805
Cloves	43,008	Silk, artificial	92,656
Drawing paper	35,569	Water, natural mineral	15,200
Glass	18,439	Wine	1,344
Golf capes	126	Woolen cloth	640,471
Hair felt	2,414	Woolen yarn	1,063
Hooks and eyes	4,352	Wrapping paper	37,852
Linen and linen mesh	60,671		
Machinery	27,845	Total	1,650,351
Needles and pins	160,262		

EXCELLENT MARKET.

HOW IT MAY BE DEVELOPED—ARTICLES NEEDED.

Consul C. B. Hurst, of Plauen, writes that many American manufacturers are giving attention to exporting to Germany, but a more thorough study of the prevailing local conditions is a preliminary step often unfortunately neglected.

Germany is a thickly populated country, strong in purchasing power, and ready to buy manufactured American goods in a number of lines, if properly placed before them. The assiduity devoted by the German exporter to the introduction and sale of his goods abroad is emphasized by the painstaking care he gives to his domestic customer. In many cases the goods offered could be excelled or at least equaled by similar American articles, but there is scarcely any other way of entering this well-guarded field than by personal representation. Attention has been repeatedly called to the futility of sending catalogues in a language other than that understood by the prospective buyer. Measures and weights should be computed in the metric system. Prices should be given in marks, as it brings the transaction

nearer home, and should be quoted f. o. b. American seaport, in case it is impracticable to have an agency in Germany. Even with comprehensive business literature and favorable terms, it is next to impossible to do any business by correspondence in other than staple articles.

SHIPPING GOODS—SUCCESSFUL AMERICAN SALES METHOD.

Some indication should be given of the packing charges, wanting in many catalogues coming to this office. If a new machine be ordered direct from the American manufacturer and a part be broken here while in use, the buyer is put to a disadvantage, as he must either order a new piece from America or have the machine faultily repaired at home. In the latter event, in case the machine does not run as it should, the construction is condemned and further sales in the locality are precluded.

Where it is found, after investigation by the American manufacturer, that there is a demand for his goods, or that they at least have equal chance with his German competitors, he should establish an agency through a well-qualified employee, or at any rate with a pushing native house. Where there is an opportunity to sell American goods, trade many times over can be done with the proper representative on the ground than by correspondence. One instance may be cited of a satisfactory business having been done in this district by an American speaking German fluently, who sold stereoscopes and the accompanying photographs. If he had written from New York 100 letters, making the same proposition that he did here, in all probability he would not have received a single order. Personal contact must be present; confidence must be inspired; the goods must be shown and their qualities demonstrated. There must be some consideration of existing customs of payment. It is too much to expect the average merchant to buy a machine or set of tools that he has never seen, and expect him to pay in advance, unless he be acquainted with the firm with which he is corresponding.

AMERICA AND GERMANY UNITED BY FAMILY TIES.

It is sometimes mentioned that there is an inimical feeling in Germany toward American goods, but after long observation it is not possible to recall any concrete example. It is difficult to find people in Germany who have not a friend or relative in the United States, and such have a predisposed interest or curiosity in things American that can be turned to honest advantage. There is a long list of articles that can be sold here, in greater or less quantities, if there be someone in the country to push the sales. Among other things should be mentioned sewing machines, typewriters, and cash registers. Nearly every store displays in its show window a pair of American shoes, or at least so called, though possibly made here. There is a good market for American rubbers, and there is a fine chance for metal bedsteads.

Dental chairs should be more vigorously pushed. Bookcases should find a steady market; they are known here and liked, and a family with a small library can use them to advantage. Office desks and spring-back chairs are popular. Rocking chairs are becoming known and the demand is increasing. Small oak tables sell well. Cheap to medium-priced sideboards, dining-room chairs, and ladies' desks must ultimately find a market here.

MULTITUDE OF ARTICLES CAN BE SOLD.

Toilet articles, such as popular dentifrices and shaving soaps, can be sold to advantage if advertised. French and English soaps are largely bought, and there is an opening for some well-known varieties. Washing machines sell well. American safety razors are coming into use, and there is every indication that a brisk business can be done in this line. Good suspenders and stocking supporters can be sold. Prepared cereals should sell well. One brand of American oatmeal is now known all over Germany and its use is increasing. Canned fruits sell, as well as prepared soups and condiments. Canned corn ought to be introduced.

If one goes into the country and sees the vast potato fields dug by men, women, and children to such an extent that the school vacation is called "potato holidays," he may wonder why there is no American potato digger on the market. There seems to be an excellent opportunity for this article. For mowers, sweep rakes, and grain binders a wider market exists. There is increasing interest displayed in the better class of poultry, and there ought to be a good opportunity to sell some of the American incubators and brooders. In the forest districts there is a chance to sell fair-priced stump pullers. Patent carpet sweepers are becoming popular and will find a wider sale. Small articles, like fountain pens, cheap watches, cameras, and folding music stands, can also be sold.

PROSPEROUS CHEMISTS.

HIGHLY DEVELOPED INDUSTRY LOOKING FOR FURTHER SUCCESS.

A review of Germany's chemical industry, based upon reports presented at the annual convention of the Society of German Chemical Industries held recently at Nuremberg, is transmitted by Consul William C. Teichmann, of Eibenstock, who was formerly a chemist connected with one of the largest manufacturing establishments in the United States. He states in relation to this report:

The society's report gives a correct view of the situation. Possibly the liberation of denatured alcohol from taxation may help our home chemical industry, for it plays an important part in chemical manufacturing processes, particularly in the organic line; but the labor problem will still give Germany a great lead, not to mention its wonderful organization of detail features of chemical manufacturing, which in the long run proves profitable and enables the lowering of prices where competition still exists and combinations in some branches already international do not, as yet, monopolize the market price.

Figures were presented at the convention showing for the year 1905 an increase over 1904 in the German chemical manufacturing business, both for the import of raw materials and the export of manufactured products, amounting to 14 per cent. It is true that the prospective enforcement of the new tariff on March 1, 1906, added considerably to this increase, but statistics for the first six months of 1906 now show figures almost as high as those of the corresponding months in 1905. The annual report of the society, in reviewing the conditions of this prosperous business, establishes the fact that the average yearly wages paid the ordinary laborer in the chemical works during 1905 amounted to $245, an increase over 1904, when the average had been $243. It

will be seen that the advantage of such low wages enables Germany to produce at a cost small enough, so far as the labor part of chemical manufacturing is concerned, to give it a competitive power in the American market of a very formidable character.

BIG AMERICAN PURCHASES—LARGE PROFITS.

This factor added to the highly developed practical utilization of material formerly thrown away as waste by-products, but now rendered useful by improved manufacturing processes and the quick application of the discoveries of chemical research for technical and commercial purposes, explains the superiority of Germany as a seller of chemicals and drugs in the markets of the world, the United States alone buying from $15,000,000 to $16,000,000 worth every year. The number of chemical plants increased from 8,004 in 1904 to 8,278 in 1905. The wages paid to the "regular" laborers amounted in 1904 to $44,030,000, and in 1905 to $47,005,000, the number of such laborers being 179,800 in 1904 and 188,400 in 1905. The profits achieved by this great branch of German manufacturing during that year are calculated from the balances of 142 stock companies with a paid up capital of $109,480,000, "mortgages and securities," representing $19,992,000, and the reserve capital figuring $33,796,000. The best record year, 1899, is taken as a basis for the profit estimation and given the figure 100. The subsequent years by comparison show the following results accordingly: 1899, 100; 1900, 91.2; 1901, 90; 1902, 87.2; 1903, 93.3; 1904, 98.7; 1905, 106.2.

These figures demonstrate the large gains recorded in 1905. The branch representing the manufacture of colors and dyes from coal tar shows the greatest increase, followed closely by the powder and explosives manufactures, which were much benefited by the Russo-Japanese war. The industries of artificial fertilizers, alkalies, mineral acids, and matches also made good gains. The least increase is noted for the industries of pharmaceutical, photographic, and other technical preparations, because competition was so strong in these branches as to prevent a rise in prices corresponding to the rise in raw materials and labor.

PROSPECTIVE CHEMICAL DISCOVERIES.

In its final conclusions the report combats the opinion expressed in some quarters recently that the problems of this industry have been exhausted and "epoch-making" inventions were not to be expected in the near future, hence a reduction of profits appeared inevitable. The report scouts this idea and denies the claimed inventive weakening, emphasizing the fact of the appearance of new problems already indicating new sources of economic welfare.

It points to the prospective substitution of the work of the silkworm by the spinning of wood cell material in the near future, to the laboratory work now being assiduously conducted for the purpose of supplying an artificial india rubber, the efforts toward utilization of atmospheric nitrogen to replace the saltpeter of nature needed for industries and agriculture. The recent technical triumphs in the successful replacing of natural indigo and madder ("Krapp") by artificial products are related as examples of continued inventive progress. The synthetic efforts now made in albumen are referred to as exceedingly important to the coming generation. It closes with the declaration that chemical industry deserves to be denoted as the "industry

for unlimited possibilities" and could look to a bright and prosperous future.

In connection with German achievements in this line of manufacturing Jules Huret, discussing his recent observations made in Germany, in a series of interesting articles published in the Paris "Figaro," relates a statement coming from the manager of one of the largest chemical establishments in the world, to the effect that fifteen years ago research and experimental work was started in Germany for the production of artificial indigo, all the indigo then being imported in its raw material form; to-day Germany supplies its entire home consumption with the artificial product, as a result of the untiring efforts of the past fifteen years, and in addition thereto exported many million dollars worth of this commodity to foreign countries every year. Huret calls attention to the fact that thirty years ago Great Britain controlled the market for salts and alkalies; to-day Germany supplies its own market and competes all over the world with the product of other countries with increasing success. Huret's statements are borne out by the 15 per cent gain in the chemical business of one year and the profit figures given above.

HIGHER RENTS.

ADVANCE GREATEST IN SMALL MANUFACTURING TOWNS.

Consul W. Bardel writes from Bamberg that while food and clothing have become much dearer in Germany the prices for rents have been materially increased also.

The increase in rents is more marked in towns than in large cities. With the improvement of industry during the last few years it was principally in the smaller manufacturing towns that the demand for smaller homes became so large that even with increased activity in building the supply was far from being sufficient. An advance of 20 per cent was by no means uncommon in rents for the most modest apartments, which in their completion are bare from any modern improvement, such as homes consisting of two small rooms and a kitchen. Small towns in the suburbs of large cities have had to suffer the largest advance in rents of rooms for the poorer classes.

Small homes have not suffered as much of an increase in rents in cities as in towns. Between the years 1901 and 1905, inclusive, the annual average rents for smaller apartments increased in Frankfort from $55.45 to $55.70, in Stuttgart from $72.83 to $75.21, in Breslau from $33.56 to $36.18, in Konigsberg from $45.22 to $46.65. The rents for small quarters remained the same during that period of time in Aix-la-Chapelle, Nuremberg, and Magdeburg, while in Dusseldorf they decreased from $53.31 to $52.84, in Munich even from $76.87 to $66.16. Heavier increase in rents is shown in Dortmund, Duisburg, and particularly in the cities of Halle and Chemnitz.

For larger apartments, however, the price of rents in all larger cities has been increased quite considerably. This latter condition is not so much attributable to limited supply and large demand as to speculation in real estate, which is developed heavily in larger cities, and which must necessarily influence rents. The betterments in comfort and decoration, keeping step with the increase in rents, offer the better situated class of people an equivalent, and, as a rule, the most

expensive quarters seem to find ready takers. Of course in city centers in which the workingmen's quarters prevail speculation can not affect values of property to an important extent, for the simple reason that higher rents can not be collected from people whose income forbids greater payments. A quick and sudden increase would only cause the workingmen's families to live still closer together.

POTATO ROT PREVENTED BY WASHING WITH LIME.

German papers publish a method to prevent potatoes in cellars from rotting, on which Consul-General Guenther, of Frankfort, reports:

It is claimed that the potato fungus causes rotting. This fungus, if present on some potatoes in the cellar, spreads to other potatoes and causes rot. A solution of one pound of chloride of lime dissolved in 25 gallons of water is used for washing the potatoes by means of a broom. They are then spread out to dry. Through this procedure the spores of the fungus are killed.

GREAT BRITAIN.

EXPORTS FROM LIVERPOOL.

WHAT IS SENT TO THE UNITED STATES AND ITS OUTSIDE TERRITORY.

Consul John L. Griffiths, writing on the foreign trade of Liverpool, gives a list of the declared exports to the United States for the six months ending December 31, 1905, the value of which aggregated $11,866,348. In addition, $868,088 in value were sent to the Philippines, $9,640 to Hawaii, and $17,534 to Porto Rico. The leading articles exported to the United States and Philippine Islands were:

Articles.	United States.	Philippine Islands.	Articles.	United States.	Philippine Islands.
Bags and bagging	$416,966	$1,397	Metals, other than iron and steel	$134,692	$25,486
Chemicals, drugs, and dyes	347,205	11,509	Oil	540,485	2,487
Copper	1,392,894	1,110	Paper-making machinery	204,895	.....
Cotton, raw	155,620	.....	Rice and rice flour	153,738	.....
Cotton, manufactures	62,009	456,083	Rubber	3,009,370	3,470
Fish and game	457,428	282	Salt	148,895	.....
Fruits and vegetables	120,008	419	Tin and terne plate	575,704	3,290
Glue and glue stock	115,866	.....	Wax	100,468	.....
Hides and skins	456,158	282	Wool and hair, and manufactures of	1,049,100	1,752
Iron and steel, manufactures of	845,377	151,834	Woods	641,300	.....
Machinery	105,272	128,777			

The exports to Hawaii were manufactures of cotton, hardware, linen and lace goods, machinery, etc. The articles exported to Porto Rico consisted of bags and bagging, hardware, linen and lace goods, machinery, and miscellaneous merchandise.

The exports from the St. Helen's agency (12 miles east of Liverpool) to the United States during the six months were valued at $510,473, and comprised the following leading articles: Chemicals, valued at $337,159; earthen and glass ware, $105,808; paper-making material, $17,773; paints and varnish, $16,881; and steel and manufactures of, $14,189.

HIGH SHEEP PRICES.

FANCY ANIMALS ARE IN GREAT DEMAND.

Consular Agent F. W. Prescott, at Dover, makes a report of interest to stockmen as follows:

Since the formation of the Kent Flock Masters' Association, eleven years ago, there has been a marked improvement in the breed of the well-known English Kent or Romney Marsh sheep, with a corresponding increase in the price paid for stud rams, and a much larger export trade, especially to the Argentine Republic, Uruguay, and Australasia. During the past twelve months 647 sheep have been dispatched abroad as against 302 in the same period of the previous year, and a price which was then considered a record was paid for a ram for New Zealand, viz, $500.

The first annual show and sale of the present season was held at Ashford the first week of October, when 502 registered rams were penned and the above record was broken, a ram teg selling for 120 guineas and all round better prices were made. A considerable number of the sheep sold were for export.

SPAIN.

THIS YEAR'S TRADE.

FIRST SEVEN MONTHS OF THIS YEAR SHOW EXCELLENT INCREASE.

Consul L. J. Rosenberg, of Seville, furnishes the customs statistics of the exterior commerce of Spain for the first seven months of 1906, the summary of which, compared with the same period last year, is as follows:

Articles.	Imports.		Exports.	
	1905.	1906.	1905.	1906.
	Gold pesetas.	*Gold pesetas.*	*Silver pesetas.*	*Silver pesetas.*
Raw materials	193,640,048	234,251,756	221,476,997	253,108,274
Manufactured goods	113,530,947	132,077,804	109,503,269	117,634,085
Foodstuffs	141,895,163	148,035,537	185,811,576	148,764,763
Total	449,066,158	514,365,097	516,791,842	519,507,122

Gold peseta=19.3 cents.

The customs authorities state that: "The imports being valued in pesetas (gold) from July 1, this is the value which appears for the year 1906, but as in the year 1905 they were valued in pesetas (silver) the value with which they figure in the preceding year is diminished so much per cent mean change; i. e., 30.94 per cent."

Also that the values of exports which in 1905 were marked in silver, increase in the same proportion; and as the basis of calculation for 1906 is also in pesetas (silver) the increase averages 13.42 for the first six months of the present year.

BARCELONA'S GROWTH.

COTTON IMPORTS—FREIGHT FACILITIES—EXPORTS TO AMERICA.

Consul-General B. H. Ridgely, reporting on the trade of Barcelona, says:

No other seaport of southern Europe can show such a remarkable record of natural growth and progress in every branch of commerce as Barcelona. It is the center of cotton manufacture of the Iberian Peninsula, and is one of America's best customers for cotton. About 350,000 bales are imported annually, and of these 75 per cent come from the United States. More than 100,000 cotton operatives are employed in the various factories in and about the city.

The port of Barcelona is one of the finest on the Mediterranean, and with the completion of a half mile of new storehouses it presents splendid facilities for handling freight. About 4,500 vessels enter and clear annually. There are regular lines from Barcelona to every important port of Europe, and two lines with regular monthly sailings to New York.

As an evidence of what Barcelona does in the one article of grain, there were cleared during the first six months of 1905, 46,907 tons of wheat, 242 tons of barley, 30 tons of rye, and 318 tons of maize. Among the leading imports are coffee (60,000 bags annually), cocoa beans, wheat, staves, hides, coal, and raw cotton. The commerce in staves is still important, though there is a falling off in the imports from the United States. About 2,500,000 staves are imported annually, 60 per cent coming from the United States.

TRADE WITH THE UNITED STATES.

The principal articles of import from the United States during 1905 are given in quantities, as no account of values are kept, and are as follows: Coal, 4,418 tons; raw cotton, 58,119 tons; agricultural machinery, 376 tons; timber, 9,138 cubic meters; cabinet wood, 512 tons; copper precipitate, 2,000 pounds; leather, 48 tons; machine parts, 231 tons; and paper of all kinds, 56,880 pounds.

The value of the declared exports from Barcelona to the United States for 1905 amounted to $427,884, an increase of $116,304 over 1904. The exports to Porto Rico for the same period were valued at $293,921, an increase of $4,936 compared with 1904, and those to the Philippine Islands amounted to $798,750 in value, against nothing for 1904. The principal exports to the three countries mentioned are shown in the following statement:

Articles.	United States.	Porto Rico.	Philippine Islands.	Articles.	United States.	Porto Rico.	Philippine Islands.
Arsenious acid	$69,323	.....	.....	Lace goods	$8,439	$416	$28
Books	2,711	$3,929	$9,472	Leather and shoes	235	53,114	70,199
Breadstuffs	.....	3,221	1,432	Licorice paste	71,690	.....	.....
Capsules, metal	8,153	77	.....	Linen goods	827	18,686	32,977
Cards, playing	107	187	30,271	Mineral water	10,776	1,991	794
Cloth, not including linen and cotton	.....	258	4,189	Oil, olive, etc	6,710	5,178	1,468
Cork	8,274	440	258	Paper and cardboard	3,138	42,431	27,778
Cotton goods	75,080	11,732	472,191	Peppers	5,983	848	2,358
Fertilizers	.....	.....	7,194	Provisions	19	3,184	5,810
Fruits and nuts, including almond paste	1,397	6,896	14,367	Skins and hides	16,268	2,087	.....
Glassware	.....	128	8,052	Soap	408	65,476	662
Glycerine, crude	82,340	.....	.....	Vegetables	429	31,257	16,298
				Wine, etc	2,743	3,993	11,461
				Wood, manufactures of	859	2,835	1,269

The exports from the Barcelona agencies to the United States during 1905 amounted to $2,043,201, of which cork was the principal item, being valued at $1,224,962. The exports from the same sources and for the same period to Porto Rico amounted to $55,731 and to the Philippine Islands $63,674.

BILLS OF LADING WITHHELD AND RESULTS.

Merchandise arriving here is often unaccompanied by the necessary bill of lading. As a consequence, the consignee can not be advised, and it becomes the duty of the collector of the port to sell the merchandise at auction to the highest bidder. The consul-general advises that bills of lading be sent by registered mail. This would insure prompt delivery and would result in a much better feeling toward American trade.

ERGOT OF RYE.

GOOD SPANISH SUPPLY—SPANISH MARKET FOR CHEMICALS.

Consul-General Ridgely, in a letter from Barcelona, also says that the amount of ergot of rye used for various medicinal purposes in all countries is surprisingly large, and it is said that Spain supplies the best quality of the plant from which this product is derived. He writes:

It is supplied and used ground to a powder, but, owing to the fact that it does not keep well, that it is very voluminous and of too unpleasant a taste to be taken in large doses, and to the further fact that some of its active principles are only required at times to meet special indications, numerous pharmacological preparations of it, based on new physiological investigations, are constantly coming into use to meet the requirements of suffering humanity, and there is, I am informed, a very general demand for the powder.

The curious fungus belonging to the Cryptogamia class in the Linnœan system, from which ergot of rye is produced, is found growing profusely amongst wheat in the fields of some of the northern provinces of Spain, and on account of its unsurpassed quality and its richness in active principles it is quoted in European markets at top prices, and at almost double the price of the Russian article, for instance. I call, therefore, the attention of American manufacturing chemists to the importance of supplying themselves direct from this market. I also take advantage of the opportunity to call the attention of first-class manufacturing chemists to the increasing consumption in this country of other chemical drugs manufactured in other European countries with which we are able to compete in quality being now also on an equal footing as to the import tariff duties.

In regard to ergot of rye, persons interested in knowing something of the visible supply and the selling price in Spain might address a Barcelona party [address of whom will be supplied by the Bureau of Manufactures].

AUSTRIA.

BOHEMIAN COMMERCE.

VALUE OF TRADE AND HOW TO SECURE IT.

Consul U. J. Ledoux, writing from Prague, says that many Americans have been surprised when informed that Bohemia exported $5,446,812 (or nearly half of the total from Austria-Hungary of $11,934,247) of the very highest class of merchandise, mostly manufactured goods, to the United States (1904), and consumes about one-third of the total imports into Austria-Hungary from the United States, amounting to about $7,000,000 (1904). The consul continues:

It is difficult to say what proportion of the total imports into Austria-Hungary from the United States ultimately reaches the Bohemian market. There are no separate statistics kept by the Government, but one can safely estimate that about one-third of this import reaches Bohemian consumers. There is certainly over $2,000,000 worth of American goods sold each year in the Bohemian market. And that is little for such a market. Trade is then in favor of Bohemia to the tune of over $3,000,000, when with proper efforts it should and could easily balance.

The principal American imports into Bohemia have thus far been cotton, leather, agricultural implements, boots and shoes, cash registers, sewing machines, hardware, typewriters, office furniture, stationery, office specialties, canned products, dried fruits, kitchen utensils, phonographs, hats, heating apparatus, bicycles, petroleum, lubricating oil, tallow, walnut wood for cabinetmakers, and general novelties and specialties. With proper initiative we could greatly increase our sales in boots and shoes, office furniture, stationery, office specialties, machines, tools, canned fruits, kitchen utensils, hats and caps, shoe polishes, shoe-store fixtures, general store fixtures and specialties, electrical machines and specialties, labor-saving machines, novelties of all kinds, etc. In fact, the only serious efforts accompanied with the proper sales system thus far made by my countrymen to secure their share of the Bohemian import trade are in agricultural implements, sewing machines, typewriters, cash registers, and phonographs. We practically control the market in these lines, not only on account of the quality of the American article, but on account of the marvelous export organizations of the companies introducing them.

COMMERCIAL TRAVELING.

Catalogues will have but little effect unless followed by personal solicitation. Send drummers—and where possible, American drummers—on observation tours and sales campaigns. They will secure more trade and data in a few days than would tons of literature. The regulations governing foreign commercial travelers in Bohemia are very liberal. They enjoy absolute freedom from taxation and can solicit orders for the following articles without even the necessity of a license: Machines, including motors and parts thereof; building material, artificial stones, roofing, felt, etc.; technical instruments and appliances for heating apparatuses; light and water plants; wooden

shutters and window blinds; sewing machines, typewriters, and bicycles. To solicit orders for other articles a license can be easily secured through the ministry of commerce in Vienna, the provincial government (Statthalterei) in Prague, or from the chambers of commerce. The application should be made by the employer. This license is good for all Austria-Hungary, and, unless revoked for cause, is valid until the holder severs his connection with the employer. Samples are free of duty, besides they enjoy a preferential tariff on all the Austro-Hungarian railways. This can be secured by presentation of special licenses issued by the railways.

American trade in Bohemia is crippled by too much middlemen's profits. Our goods are generally costly, and this is frequently caused by the numerous commissions, sometimes doubling the cost in passing through the hands of so many factors. For instance, I know of some orders which have been sent to the "first hand," the manufacturer, which were referred to their "eastern agent," who referred it to his "export agent," who referred it to his "European agent" (England or Germany), who referred it to his "Austrian agent" at Vienna, who finally referred it to a wholesale house having the exclusive sale of the article for Bohemia. Each of course shaved off a commission.

The transportation facilities to Bohemia, particularly to Prague, are very good. Freight can be sent via Hamburg, Bremen, Trieste, and Antwerp, but the two first routes are the shortest and quickest, besides being the most frequently used. Hamburg is connected with Prague in summer by the rivers Moldau and Elba, upon which freight rates are very low and most favorable for bulky shipment and slow freight. The rate is nearly half that on the railway. The distance from Prague to Hamburg is 413 miles.

INDUSTRIAL NOTES.

Negotiations are on foot for the organization of a trust of glue manufacturers. The combination is to apply both to the purchase of raw material and to the sale of the products. The trust is expected to include almost all Austrian and German makers and some works in other countries. It is reported that the trust agreement would come in force on October 1 and that it would extend over a period of ten years.

It is reported that the trade in cotton goods continues very active. Spinners are said to be under contract for the greatest part of their production up to June, 1907. There is a good demand for certain classes of yarns for near deliveries, and consequently prices have been very little affected by the recent decline in the value of raw material. The weaving establishments are likewise well under contract for the next eight or nine months. As consumers have still to fill part of their requirements full prices are being paid.

The demand for petroleum for export is very brisk, especially for Germany, Switzerland, Belgium, and Holland. Early in September a cargo of 4,500 tons of petroleum was shipped via Hamburg to England. Since then a large Bohemian refinery has shipped in tanks about 5,000 tons to England, and a further shipment of 4,500 tons was shipped via Trieste to England. Prices are tending upward.

According to a recent report by a large Bohemian export firm, the prediction that the increased German duty on barley would stop the

export of this article from Austria-Hungary to Germany has apparently not come true. On the contrary, the export demand for Bohemian barley is very brisk, and it is probable that these shipments to Germany will continue throughout the season 1906–7, provided prices are not forced too high. This demand is said to be due, however, to the abnormal condition of the German market, owing to the poor crops in the barley-producing districts on the Saale and Oder. This forced the German brewers to cover their shortage by buying largely in the Bohemian market. Up to the present the whole burden of increased taxation is said to fall upon the German consumer. Prices are ruling high, but, as a general rule, cheerfully paid, as brewers find themselves to a certain degree compensated by the excellent quality of this year's Bohemian barley crop.

ITALY.

AMERICAN SUCCESS.

PASSENGER CARS AND ENGINES FOR RAILWAY IMPROVEMENT.

Consul C. S. Crowninshield reports from Castellammare di Stabia, the successful introduction into Italy of American rolling stock for the state railways of that country. He writes:

The Italian Government has taken over several railroads, formerly owned by private companies, and has purchased some American cars and locomotive engines with a view to improving the rolling stock of the roads in question—an improvement which was much needed. From the American Car and Foundry Company, of St. Louis and New York, the Government has purchased 30 cars (all built at the Jackson and Sharp plant of Wilmington, Del.). These cars are the usual type of American passenger day coaches. They will be used as cars of the first class. It will be of interest to note their reception by the Italian traveling public. Although an innovation in form and arrangement, I believe that they will be accepted with joy by the travelers of this country, presenting as they do many advantages over the old Italian type of first-class car. I have talked with several Italians on the subject, all of whom have expressed themselves as much pleased by the conveniences afforded.

Twenty locomotives have been sold to the Italian Government by the Baldwin Locomotive Company, of Philadelphia. These include 10 freight and 10 compound balance engines, all American types. Other Americans interested in railway rolling stock might find a new market for their goods in Italy. It seems probable that more sales may be made to the Italian Government, but I can not report anything definite in that respect.

It is estimated that $253,000,000 will be required by the Italian state railways during the next ten years for the purpose of bringing the rolling stock and plant up to modern requirements. A correspondent of the Berlin "Boersen Courier" learns that the Italian Government intends to introduce a bill to authorize a loan of $77,864,000 for works of railway renovation to be expended in a period of two years.

PALERMO'S FOREIGN TRADE.

ITALIAN PORT SHOWS LARGE EXPORTS TO UNITED STATES.

Consul W. H. Bishop, reporting on the commerce of Palermo, reveals the fact that that Italian port is selling four times as much to the United States as it buys from this country. The consul writes:

The total imports into Palermo during 1905 amounted to $5,172,971, a decrease of $161,752, and the exports therefrom $5,677,807, an increase of $698,182, compared with 1904. The total trade with all countries and the trade with the United States are shown in the annexed table.

Articles.	Total imports.	Imports from United States.	Total exports.	Exports to United States.
Animals and products thereof	$335,275	$114,590	$328,877	$211,600
Books and paper	48,115	1,644	3,046	420
Cereals, flour, vegetables, etc	1,630,769	.....	2,394,956	1,162,548
Chemicals, drugs, etc	168,546	22,032	408,373	92,474
Coffee, sugar, tobacco, etc	403,284	253,711	284,533	161,729
Colors, etc	119,292	.....	1,154,070	261,546
Cotton	81,808	18,267	12,600	.....
Hemp, linen, etc	119,493	224	7,551	3,886
Hides, skins, and furs	234,051	2,544	112,432	51,809
Minerals, metals, and manufactures of	592,495	11,263	140,602	77,402
Silk	17,884	.....	5,925	.....
Spirits, oil, and drinkables	160,774	94,649	581,411	311,832
Stones, pottery, glass, etc	628,658	13,479	163,609	60,105
Wood and straw	399,426	112,566	37,276	4,364
Wool and hair	173,659	3,863	22,516	1,924
Other articles	59,042	2,758	20,030	2,239
Total	5,172,971	651,590	5,677,807	2,403,878

SWITZERLAND.

WATCH TRADE EXPANDING.

Consul Edward Higgins reports that the Swiss-watch industry in the Berne district gives employment to 25,000 persons in the factories and several thousand more who work at home. Flourishing trade schools, which thoroughly cover the making of watches, have been established in all the larger towns. The minimum age for entrance is 14, and a three-years' course fits the pupil for high-grade technical work. The total value of the watches exported in 1905 was $25,733,000, an increase of $2,000,000 over 1904. The chief buyers of the Swiss watches were: Germany, $5,800,000; United Kingdom, $3,200,000; Russia, $2,500,000; Austria, $2,300,000; United States, $1,700,000, and Italy, $1,525,000.

ROUMANIA.

DEVELOPMENT OF COUNTRY.

INCREASE IN POPULATION AND PRODUCTION—TRADE WITH AMERICA.

Roumania has been holding an exhibition at Bucharest which has brought out some interesting statistics with reference to the development of that country since 1866.

The population has increased during the forty years in question by 2,345,000, and now totals nearly 6,000,000. The area of land under

cultivation has increased by nearly 3,000,000 hectares (hectare = 2.471 acres), the annual production of wheat by 39,000,000 hectoliters (a hectoliter = 2 bushels 3 35 pecks), and of maize by 15,000,000 hectoliters. Cultivation has also improved, not only in extent, but in quality. The production of wheat per acre has very largely increased, the rate now being more than double what it was in 1866. The development of the petroleum industry has been very large during the last ten years. In 1866 the output of petroleum was only 9,515 tons, whereas in 1905 the total amounted to 496,870 tons. The entire railway system of 3,000 kilometers (kilometer = 0.62137 mile) has been built up in the forty years. There has naturally been a considerable increase in the national debt from 80,000,000 francs, involving an annual interest payment of 11,000,000 francs, to 1,443,000,000 francs at present, with an interest payment of 89,000,000 francs (franc = $0.193). In 1876 there was a budget deficit of 18,000,000 francs, while this year there is a surplus of at least 10,000,000 francs.

INCREASE IN EXPORTS TO VARIOUS COUNTRIES.

According to statistics which have been published by the Roumanian ministry of finance the value of the exports from that country in 1905 was 457,000,000 francs. This is the highest value on record, the five years' average ended with 1905 having been 360,000,000 francs. On the other hand, the imports amounted to 337,000,000 francs, a total which, although less than the 390,000,000 francs recorded in 1898, is still higher than the 299,000,000 francs representing the average of the five years ended with 1905. It is noteworthy in regard to the Roumanian import trade that Austria-Hungary occupies the premier position, the percentage of goods received from the dual monarchy having been 28 per cent in 1905, as compared with 16 per cent in 1891. The imports from Germany have, however, declined from 31 per cent in 1891 to 27 per cent in 1905; those from Great Britain have receded from 31 per cent to 15 per cent, respectively, and those from France have fallen from 9 per cent to 5 per cent, respectively, in the same years.

On the export side of the account the statistics show that 75 per cent of the total is composed of cereals, and that Belgium and Holland received one-half of the aggregate exports in 1905. The figures are 32 per cent for Belgium in 1905, as contrasted with 15 per cent in 1891, and 18 per cent in the case of Holland, as against 1½ per cent in 1891. Italy occupies the third position with 10 per cent and 2 per cent in 1905 and 1891, respectively; Austria-Hungary ranks next with 9 per cent and 8 per cent, and France is represented by 4 per cent and 3½ per cent, respectively. The exports to Germany have, however, fallen from 11 per cent in 1891 to 7 per cent in 1905, and those to England have declined from 52 to 7 per cent, respectively.

The United States imported from Roumania direct only $4,026 in value for the fiscal year of 1906, but more came indirectly from other countries. The exports to Roumania in the same time were $617,608 worth, a decline of $284,898 from the fiscal year of 1905.

GREECE.

PAPER INDUSTRY.

RAW MATERIAL IS ADMITTED FREE.

Consul-General George Horton, of Athens, writes that the paper industry has not made much progress in Greece, although the first mill was established there thirty years ago.

There are only two paper mills worthy of mention in the entire Kingdom. The larger one manufactures paper from rags and refuse paper, from cellulose imported from Hamburg, and from "hatzstaff" from Dresden. The cellulose costs from 15 to 25 marks (mark=23.8 cents) the hundred kilos (kilo=2¼ pounds), the "hatzstaff" 11 marks the 100 kilos. The yearly output of the company is 1,000 tons, mainly wrapping paper, cardboard, etc. The Greek Government has protected this industry since its foundation by imposing a duty tax on all goods likely to compete with the domestic company's product. The raw material is admitted free.

BULGARIA.

ARCHITECTS' PLANS FOR A UNIVERSITY WANTED.

Minister John B. Jackson, at Athens, sends further details as to the architects' plans desired for the Bulgarian University building at Sofia.

The time limit for submitting plans to the Bulgarian ministry of public instruction is April 1. In addition to the three prizes of $2,000, $1,400, and $1,000, a further sum of $900 will be at the disposition of the jury for the purchase of other designs. On the jury there are to be two foreign architects—a Frenchman and a German. To any foreign architect who cares to apply there will be furnished gratuitously the programme of the competition and the plan of the ground at Sofia on which the university is to be built.

SERVIA.

THE AUSTRIAN DIFFICULTY FURNISHES TEUTON TRADE OPENING.

A report from Minister John B. Jackson, at Athens, says that both Germany and Bulgaria, are taking advantage of the prolonged disturbance in the commercial relations between Austria-Hungary and Servia.

Not only have considerable numbers of Servian cattle been exported through Bulgaria to Italy and Egypt, but the regular exportation from Varna has recently been organized by a Berlin firm of Servian cereals. Special freight rates have been given by the Bulgarian railways, and during the last three months 558 carloads of Servian cereals have been exported, as against 320 carloads for the same period of last year.

Bulgaria already grants a subsidy of 125,000 francs (francs 19.3 cents) annually to the German Levant Line, which calls at Varna and Bourgas, and now that a satisfactory arrangement has been made between the Bulgarian General Direction of Ports and Railways and certain

Russian navigation companies for the establishment of regular communication between the Bulgarian ports and Russian Black Sea ports, negotiations are to begin between that direction and the Prussian railway direction and the German-Levant Line, looking to the establishment of a direct service from Varna and Bourgas to Hamburg and the interior cities of Germany, which will greatly facilitate the interchange of Bulgarian and German products.

SWEDEN.

INTEREST IN AMERICA.

SCANDINAVIANS VISITING UNITED STATES—PATENT PROTECTION.

Consul R. S. S. Bergh reports from Gottenborg that two bankers and a merchant recently left Sweden for a business trip in the United States, concerning which he writes:

During their sojourn in America they will devote their time to banking business and to work for the increase of the commerce between Sweden and the United States. It is said that they will work for the introduction of Swedish goods in America and sell some patents on Swedish inventions and that they will especially study American industries and take home a collection of American tools of undisputed excellency in order to build factories in Sweden at which similar tools, adjusted to Swedish requirements, could be manufactured.

In connection herewith and as imitation or reproduction of American inventions are by no means uncommon, I again take the liberty to ask whether it would not be of advantage for American inventors to take out letters patent here on their inventions? I understand that a patent in Sweden is lost if not exploited in this country within three years, but in the meantime it could possibly be sold and some income obtained from it, besides the profits on goods disposed of, before the patent was sold.

COST OF A SWEDISH PATENT—AMERICAN TRADE.

I understand that the cost of obtaining and retaining a patent in Sweden for fifteen years is about as follows: Fee for petition, $14.74; stamp tax on letters patent, $2.68; dues to the Government, first period of five years, $40.20; second period of five years, $73.70; third period of five years, $107.20; making a total of $238.52, to which comes some extra expenses if any objections to or remarks are made with reference to the application; also fees for translation, by about 50 cents per 100 words, and cost of necessary drawings or designs.

The Swedish press, and especially the energetic director of the Swedish Export Association, recommends that Swedish manufacturers and exporters should pay more attention to the American market, which he says is a better field than generally supposed. He states that a special Swedish commercial agent (handelsstipendiat) during six months' stay in the United States was able to sell paper for $134,000, the best positive result obtained by any such agent. A direct steamship line between Sweden and the United States is also recommended, as well as improvement of the Swedish consular service in America.

SPECIAL FREIGHT TARIFF FOR EXPORT GOODS.

Some time ago the General Export Association of Sweden appointed a committee to make investigations regarding freight tariffs in foreign countries and prepare a proposition for special Swedish freight tariffs for export and transit goods. The committee's report mentions the export freight tariffs in Germany, France, England, Austria-Hungary, Belgium, Holland, and Italy, especially those of Germany, which are considered of great benefit to that country.

It is further held out that the value of Sweden's imports exceed the value of the exports by about $13,400,000 per annum, that the imports can hardly be reduced, but that the exports might, by proper arrangements, be increased, and that, as the Swedish factories are mostly located at long distances from the ports of shipment and from larger places of consumption, a reduction of the railroad freights for export goods would be highly beneficial.

EXTENSIVE REDUCTIONS.

It is proposed that the present railroad freight rates for pig iron should be reduced by 15 per cent, for wrought iron and steel by 25 per cent, for implements and other manufactures of iron by 31 and 48 to 55 per cent, and for the better classes of castings by 67 per cent. With reference to heavy machinery in carloads, the committee proposes a reduction of 50 to 55 per cent, for lighter and more expensive machinery a reduction of 65 to 70 per cent, and for piece goods an average reduction of 55 per cent. Concerning chemical wood pulp, a special tariff is proposed, making reductions varying from 18 to 37 per cent, depending on the distance it is transported, and for dry pulp about 30 per cent. Pasteboard or building paper should have the same tariff as cellulose, and better sorts of paper should be transported according to the same tariff as the better classes of manufactures of iron and steel. The freight for building joinery should be reduced by 30 per cent and for planed boards by 10 per cent.

I have no information as to how this reduction in the freight rates is expected to be arranged between the Government's railroads and the private railroad companies. If said proposition is approved by the Government, it will undoubtedly have some effect on exports to the United States and will cause larger quantities of goods to be shipped from (via) Gothenburg. Of the goods mentioned, iron and steel, wood pulp, paper, pasteboard, and some manufactures of iron and steel are exported from Gothenburg to the United States.

NORWAY.

COMMERCIAL ADVANCE.

EXCELLENT INCREASE IN BOTH EXPORTS AND IMPORTS.

Consul-General Henry Bordewich, reporting from Christiania, says that the total foreign trade of Norway for 1905 amounted to $134,911,200, viz, imports $80,292,800, and exports $54,618,400.

The increase in imports was $4,690,000 and in exports $5,976,400 over 1904. The principal articles of import and export were:

Articles.	Imports.	Exports.	Articles.	Imports.	Exports.
Animal food products	$3,342,136	$3,784,800	Metals and manufactures of	$9,489,798	$1,517,094
Beer and other beverages	1,046,080	244,657	Minerals and products thereof	733,300	1,382,451
Breadstuffs	15,203,058	801,695	Oil, etc	4,877,800	1,641,124
Chemicals	4,960,480	1,945,117	Paper and paper goods	1,082,302	3,324,700
Coal and coke	5,467,490		Pulp, wood	1,190,054	7,402,300
Cotton, wool, hemp, and jute	2,356,363	127,862	Ships	3,769,520	1,978,056
Fishery products	1,880,230	12,800,800	Textiles, etc	6,304,807	170,233
Fruit, vegetables, and spices	1,189,196	27,952	Wood, and manufactures of	1,621,504	10,026,356
Groceries	6,050,960	1,795	Yarn, thread, and rope	2,306,890	79,596
Leather, skins, and furs, and manufactures of	3,186,393	2,261,705			
Machinery and electrical goods	2,552,646	278,478			

The imports from Belgium amounted to $3,312,000, and consisted of hides, machinery, iron, tobacco, and groceries. In return Norway sold to Belgium $1,878,500 worth of fishery products, lumber, wood pulp, ores, and nails. Germany's share of imports was $23,366,800, made up of machinery, notions, breadstuffs, groceries. and wine, while Norway sold to that country hides, condensed milk, fishery products, furs, lumber, paper and other articles, amounting to $7,197,500. The imports from the United Kingdom were valued at $20,836,460, the principal articles being coal, fabrics, metals, breadstuffs, machinery, groceries, and hardware, while the exports to the United Kingdom amounted to $19,938,500, consisting of paper, wood pulp, lumber, ores, fishery products, stone, condensed milk, ice, etc.

Norway bought of Russia $8,576,000 worth of grain and petroleum, and in return sold to that country $1,308,300 worth of ores and fishery products. Norway's imports from Sweden, consisting of cattle, iron, steel, lumber and other articles, amounted to $6,907,860, and the exports thereto $3,027,040, the chief articles being fishery products and ores. Norway bought of Spain $618,300 worth of her products, and sold to that country articles valued at $3,252,180. The imports from the Netherlands amounted to $3,638,100 and the exports thereto $3,511,200.

The direct imports into Norway from the United States amounted to $2,157,384, of which the principal articles are shown in the following statement:

Articles.	Value.	Articles.	Value.
Breadstuffs	$278,316	Machinery, all kinds	$157,100
Cotton	12,890	Oil, paraffin, etc	515,524
Fruit	12,033	Provisions	758,447
Iron and steel products	84,491	Rubber goods	13,077
Leather and leather goods	95,889	Tobacco	91,888

The exports declared at Christiania for the United States amounted to $1,702,429, and consisted of the following principal articles: Wood pulp valued at $1,105,878, salted mackerel $156,563, oxalic acid $51,818, skins and hides $186,868, cod-liver oil $51,529, and old rubber $34,595. The exports from Bergen amounted to $787,808 and from Stavanger $759,443, making the total from Norway to the United States $3,249,680. The total imports into Christiania in 1905 amounted to $33,870,000 and the exports therefrom $10,019,500.

LEATHER.

FOOTWEAR MARKETS.

BELGIUM.

INCREASED IMPORTATIONS—AMERICAN IMITATIONS—QUALITY AND STYLES.

Special Agent Butman's investigations of the shoe trade in Belgium are given in the annexed report:

The Belgian importation of boots and shoes shows a gradual increase both in volume and value during the four years previous to 1905; a slight falling off being noted for that year as per the following table:

Year.	Pairs.	Value.	Year.	Pairs.	Value.
1901	8,542	$18,563	1904	23,174	$52,749
1902	14,143	22,260	1905	19,315	40,806
1903	16,032	31,259			

I feel no hesitancy in saying that this country offers a good market for the sale of American footwear, but must be allowed to make the following qualifications to the statement: Agencies should be established in the principal cities by firms who are anxious to secure the trade. A reasonable amount of money must be expended in advertising. It is certain that American goods are not sufficiently advertised; this is true of practically all articles placed on the foreign market by American manufacturers. The cost of advertising in Belgium is relatively small as compared with some countries, accordingly less reason is afforded for its neglect. Trade conditions should be thoroughly studied. The fulfillment of the desire of the United States to increase her manufactured exports lies largely in the hands of her manufacturers. There must of necessity be a foreign demand for manufactured goods to be met by a supply from some source. The old law of cause and effect obtains ever, and our export trade to this country ought not to lie so largely along the line of raw materials. Well appointed stores should be established and energetic American representatives speaking the language of the country should, if possible, be placed at the head of such stores.

An American gentleman, who has been for nearly a score of years a resident of Belgium and has an intimate knowledge of its trade conditions, remarked to me, "An enterprising American shoe dealer would do a thriving business here (Brussels) and could make a fortune," but neither wished nor intended to convey the impression that large quantities of all kinds of goods or even any quantity of some could be sold in this country if the proper methods were not chosen.

"MADE IN UNITED STATES" BRAND SUGGESTED.

There are many lines of American manufactured articles which for obvious reasons could find no market in Belgium, and there are many

others which may be successfully handled here. The American shoe, for instance, is popular in this country, so popular, in fact, that it is imitated by Belgian manufacturers and the imitations sold throughout the Kingdom and in the Netherlands under terms so misleading as to give the impression that the shoes are of American manufacture. In consequence of this the Belgian dealer is enabled to obtain a price for the shoes from 4 to 5 francs (franc=19.3 cents) per pair in advance of what he would be able to do were they advertised as a Belgian product. It is claimed that not more than 10 per cent of the boots and shoes purporting to be American are such. All goods made in the United States and exported to this Kingdom should be properly marked "Made in the United States for (name and address of retail firm)."

There are three stores in Antwerp handling American shoes—Visser & Co., American Shoe Company, and American Shoe Depot. None of these, however, handle exclusively American-made goods, but all report increasing sales of the American shoe. Practically the same conditions prevail in all the principal towns throughout the Kingdom. In some instances the American shoes are purchased through London agencies. I should recommend a personal investigation of the trade by manufacturers desirous of doing a successful business here.

On March 1, 1906, the tax of 20 francs ($4) a year levied on commercial travelers offering their goods in Belgium was abolished. At the present, commercial travelers of every trade can sell their goods and advertise the commodities of their firms without the payment of this tax.

GOOD SOLES SHOULD BE USED—ENGLISH TRADE.

I find a complaint is made regarding the quality of sole leather used for this trade. Uppers prove of good wearing quality, but resoling in some cases is necessary after a month's wear. The Belgian stone pavements (sidewalks) and the damp climate of the country are conditions which should be borne in mind by the American manufacturers. The characteristic Belgian shoe is long and narrow in style, but the American shape for men finds favor, owing to its comfortable wearing qualities. The leathers desired are vici kid, box calf, willow calf, roan kid, patent calf, and oil grain.

The best quality Belgian-made shoe sells for about $6. The same price would obtain for an American-made shoe of equally good quality. Prices range from $2 up. Women's shoes are best liked made in French style, with high heel, while a light shade of tan kid is very popular for women's and children's wear. Boots are preferred to low cuts, which are very little worn.

An English firm maintains attractive and well-equipped stores in the principal cities of Belgium, selling men's and women's shoes at an average price of $3.20. The following table shows the boot and shoe export trade of the United Kingdom with Belgium for the years 1901 to 1905, the United Kingdom being our greatest competitor in this line:

Year.	Pairs.	Value.	Year.	Pairs.	Value.
1901	4,688	$43,619	1904	3,921	$42,826
1902	4,653	40,680	1905	4,950	66,300
1903	3,143	39,027			

The total value of boot and shoe imports for this country for the year 1905 was $380,000; exports, $321,000. The import duty is 10 per cent ad valorem. American leathers are used to some extent in Belgian factories, the value of importation for the same for 1905 being $762,008. Importations for the same year from the United Kingdom were $1,104,056.

COPYING AMERICAN PATTERNS.

The Belgian footwear industry is said to employ between 50,000 and 60,000 workmen. While there is still considerable hand work done in the trade the bulk of the product is made by mechanical process, and while in general the quality of the shoemaking machinery employed is very crude, some of the larger manufactories have introduced up-to-date machinery.

The forms are usually of the French pattern, but, following the example of the English manufacturers, the Belgian makers are trying to copy the American styles. While the ordinary shoe sells for from $2 to $3 a pair, the better quality sells as high as $6. Most all the shoe shops, however small, advertise to sell American shoes. It is needless to say that many of those so advertised never came from America. The declared value of the importation for 1905 was $380,000 and for the exportation, $321,000.

About 4,000 are employed in factories manufacturing a machine-made shoe; these factories number about 55 and are situated principally at Brussels, Verviers, Louvain, Binche, Frameries, Paturages, and Termonde. Hand work is principally carried on in Flanders at Iseghem and Sotteghem; in the province of Antwerp at Lierre; in the province of Hainaut at Binche, and in the province of Liege at Herve. In fact the hand-made shoe is manufactured in every hamlet and village of Belgium by local makers employing one or two hands, and their output is of all sorts—nail soles (also machine made), screwed soles, peg soles, and hand sewed for men, women, and children—the annual production being approximately 2,500,000 pairs.

FRANCE.

PEOPLE DESIRE AN ARTISTIC SHOE.

American-made shoes are on sale in Calais and "Chaussures Americains" are frequently advertised. These are in many cases imitations of our products. Several pairs of men's shoes were exhibited in the window of one retail dealer bearing the following signs surmounted by a small American flag (I have noted this method in many retail shoe stores throughout Holland, Belgium, and thus far in France as the insignia of advertisements of goods of American make, or purporting to be such): "Form Roosevelt," "Form McKinley" (spelled McKimley), "Form Washington." Personal investigation makes it certain that no American marks were in these models.

Genuine American-made shoes are for sale in Calais, though there is no retail dealer handling exclusively American manufactured shoes.

Prices thus far have been held at too high a rate to permit of large sales. A few hundred pairs are given as an annual average, and those are purchased largely by foreign customers passing through Calais. The French people consider the characteristic American shoe too heavily made to please an artistic taste. This prejudice, together with

the matter of price, has made sales slow among the native population. American shoes for men sell in Calais for 35 francs ($7), for women at 28 francs ($5.60). Without doubt the sales of American-made shoes might be largely increased in Calais if a product of satisfactory quality could be obtained by the dealer at a more reasonable price. French-made shoes are retailed for 26 francs ($5.20) for men's, and 22 francs ($4.40) for women's—these of same quality as the American-manufactured shoes at prices mentioned above.

Another circumstance to be reckoned with is the presence of English competition with shoes made on American lines, sometimes of advertised American leathers, and retailed at prices notably less than those charged for the American shoe. These shoes are manufactured by a well-known English firm, and sold in Calais at the following prices: Low cuts or Oxfords from 15 francs ($3) for men's and women's, bals and button from 19 francs 50 centimes ($3.90) to 32 francs ($6.40)—these also for both men and women.

AUSTRALIA.

AMERICAN SHOES POPULAR—SUGGESTIONS TO MANUFACTURERS.

Special Agent Harry R. Burrill furnishes a brief report on the sale of American shoes in South Australia. He explains a practice on the part of some local dealers which is calculated to create prejudice against American manufacturers. It appears that second and third grade shoes exported by our manufacturers as such have been sold as first-grade shoes and at first-grade prices. It is suggested by the Australian importers that manufacturers should stamp their shoes in such manner as to prevent misrepresentation and imposition. Mr. Burrill writes:

American-made shoes for men are very popular in South Australia, while the English make of women's shoes is preferred. There is, however, a strong demand for colonial-made shoes of every description, and this demand is stimulated by the desire to patronize home industries. This sentiment is the offspring of "Australia for the Australians," and while locally manufactured shoes may not be as satisfactory as to shape or wear as those imported the consumers are strongly influenced in their favor and frequently purchase them in preference to a better article at the same price. When the American shoes were first introduced into Adelaide, they sprang at once into popular favor, and a large and constantly expanding market was established. This trade continued to improve while only the best qualities of goods were sent out, but unfortunately for the retention of American supremacy, the exporters of the United States decided to send to South Australia second and third grade shoes of the same make.

INFERIOR SUBSTITUTED FOR SUPERIOR GOODS.

There is no doubt here in the minds of those genuinely interested in the success of the American shoe on this market that the exporters manufactured the inferior grades, supposing that they would be sold as such in South Australia. It is asserted, however, on reliable authority, that all grades of these shoes were promptly labeled No. 1 and disposed of as such to the retail trade. It was impossible to con-

tinue this practice for any great length of time without detection, for the inferior quality of the shoes could not be disguised; but the blame eventually fell on the manufacturers rather than upon the retail dealers. The former were accused of exporting shoddy material and depending on their well-established reputation for high-grade shoes and honorable dealing to deceive the public. Even now, it is asserted, a customer may ask for a shoe made by a certain well-known American manufacturer, and, although the price usually demanded for the best grade may be paid, he may find, unless the quality be expressly stipulated, that his shoes are of an inferior grade.

FAIR MARGIN OF PROFIT.

To what extent this practice extends it is impossible to ascertain, but that such transactions are not infrequent is vouched for by responsible business men of South Australia. The export trade in shoes from the United States to this State is of sufficient size to justify the greatest care in preserving and extending it, and to this end American manufacturers should either send out only first-grade goods or so label inferior grades that there can be no possibility of deception or mistake.

American-made shoes of the best quality can be laid down here for approximately $3 net a pair, and they sell for from $6 to $7.50 a pair. This comfortable margin of profit ought to satisfy any retail dealer, and it probably would if a larger profit could not be made on an inferior article masquerading as the best quality. The Australian shoes sell for from $5 to $5.50 a pair. The duty on shoes imported from the United States into South Australia is now 40 per cent ad valorem, which is 10 per cent higher than is collected on shoes imported from Great Britain.

SUGGESTIONS ON PACKING.

The packing of American shoes for export is, according to the importers, poor, and an improvement in the method should be made at once. Stronger wood is required for the cases. This is imperative because of the rough handling incident to so long a journey. The cardboard boxes containing the shoes are wrapped in an oil paper which frequently stains them, causing the shoes to look shopworn and unsuitable for display on the shelves of the store. This is a serious handicap, and importers suggest that around the cardboard shoe boxes and inside of the oil paper there should be wrapped a strong brown paper to protect them from the unsightly stain which so disfigures them. These improvements, they believe, would be comparatively inexpensive and would assist materially in delivering the goods in an undamaged condition.

ITALY.

SUGGESTIONS FOR AMERICAN MANUFACTURERS.

Consul J. E. Dunning, of Milan, furnishes an exhaustive review of the Italian markets for the sale of shoes, and makes many suggestions as to how American manufactures may obtain a foothold there. He says in part:

The Italian tariff on imported shoes made of leather is 20 cents per pair. This corrects an error in a previous report. As to the market

for American-made shoes there seems to be no question of its proportions and of the demand which might be created. The principal question appears to be the cost of exploiting. The people of Italy are good buyers, but they have little knowledge of good shoes, and willingly accept inferior stock and inferior models at prices equal to that paid in America for goods of the better and often of the best class. The Italian manufacturer has cleverly met competition with an American style of his own, which is rapidly taking a place in the show windows. This endeavor to meet the call for more comfortable and more stylish shoes on the American models has spread to the cobblers who make American footwear to order. A German-made American shoe is also to be had. The imitation articles, however, are universally poor, the best Italian handturned shoe often being inferior to the lower grades of American shoes. There is not in the whole country such a thing as a shoe for women or one for children which can be regarded as better than notably inferior in stock, design, and finish. The Italian method of shoemaking is faulty from beginning to end—from the selection and treatment of the leather to the finished product—devoid of style, and quite ugly.

The character of the trade is excellent, both men and women of Milan being of smart appearance. They think a great deal of their clothes, and spend disproportionate amounts upon them. The changing seasons and fads bring forth winter boots, summer shoes, walking boots, hunting boots, tennis shoes, dancing shoes, slippers, rain boots, patent leathers, russets, etc. Russets are exceedingly popular. Shops are maintained in good style with attractive displays made and prices affixed. These run from $1 for very cheap stock to $3 and $3.50, while cobblers make men's shoes for from $3.50 to $5. Just now the wide-soled, flat-heeled, fancy, box-tipped shoe for young men is seen in every first-class shop.

GREAT BRITAIN.

AMERICAN STYLE SHOES COME TO THE FRONT.

Consul-General Robert J. Wynne reports from London that for some time there has been a great improvement in the appearance of shoes in England, due to the successful competition of the lighter and more stylish American-made article.

Formerly a heavy shoe was the rule for British wearers. Now that class of goods is hard to sell. It is stated that in Leicestershire more than 30,000 operatives employed in making the heavier classes are now working on short time, and the fact is attributed to exceptionally fine weather. But in the opinion of London makers the long summer has only brought matters to a crisis. The real reason is that the heavy "boot" has become unpopular. To keep their trade some British shoemakers have had to import American lasts. Others use British soles and import American uppers, on the theory that the British sole leather is more durable and damp proof, but the neater finish of the American upper is admitted.

While the American fashion in shoes has been followed in England, the custom of wearing rubber overshoes has not made the same headway. The sale of American shoes in Great Britain can be increased if American manufacturers and dealers are able to convince the British public of the rain-resisting qualities of their wares. British dealers

insist continually on the superiority of the home-made article in this respect, and thus have been able to recover some of their diminishing trade.

FACTORIES ARE CHEAPENING THE COST OF PRODUCTION.

Consul F. W. Mahin, of Nottingham, reports that so many important improvements have been made during the past few years at the shoe factories in and about Leicester, the chief center of British footwear production, that the industry is fairly revolutionized.

Modern machinery is now in such general use there that every process can be accomplished by mechanical means. The power of production has thus been vastly increased, and it is claimed that now, though the demand has grown, if the whole of a year's orders were placed on January 1, they could be filled and delivered within eight months, if not less. Unfortunately this great equipment of modern machinery has many idle moments. Over 30,000 operatives are now on short time. With the superseded antiquated methods and machinery they might be now busily engaged. But it is a sustaining hope that the improved appliances will eventually bring full compensation.

The greater part of the leather used in the Leicester shoe factories is of American tannage. Prices are higher than in the summer, and a further advance is threatened on account of demand overtopping supply. English leather has also advanced. Many English tanners are now engaged on foreign hides, the home article being too dear to use at a profit. Notwithstanding the higher cost of leather, little, if any, advance is expected in prices of the best boots and shoes, as savings are effected by using cheaper insoles, stiffeners, etc. In medium grades, however, advances seem inevitable. Large consumers of leather are reported to be laying in heavy stocks, apparently in anticipation of higher prices and also of an active winter and spring trade.

GUATEMALA.

SMALL SHOPS MANUFACTURE FOOTGEAR NEEDED.

Vice-Consul-General William Owen, of Guatemala City, writes that the boot and shoe business of Guatemala is in the hands of a great number of small shoemakers, who sell their own wares direct to the customer. He says:

There is no large manufacturing establishment, but at every town there are shoe stores and shoemakers. At this city particularly the output from these small establishments is sufficient to supply the demand. Prices asked for both men's and ladies' shoes at retail are equivalent to about $4 per pair, American currency. Native tanned leather is used for soles, while uppers are made of imported material.

The tanneries, like the shoe stores, are small establishments, using native materials only. Custom duties protect the shoemaker. (See Daily Consular and Trade Reports of August 20; read for value of peso or present unit of currency at which duties are collected $0.363, instead of $0.48.) Ladies' shoes are to some extent brought into the country, but the importer finds his trade uphill work. Native ladies prefer the high heel, sharp toe French shoes. [Names of importing firms and importers of leather and shoe materials of Guatemala City can be secured from the Bureau of Manufactures.]

MEXICO.

TANNERY AND FACTORY EQUIPPED WITH AMERICAN MACHINERY.

In reply to a Boston inquiry Consul Louis Kaiser, of Mazatlan, sends a list of Mexican concerns there dealing in hides, skins, and tanning materials, and shoe importers, which can be obtained from the Bureau of Manufactures. He also writes:

The Compañía Industrial y Agricola about five years ago formed a trust taking in all of the smaller shoe factories, tanneries, and shoe stores, with a capital of 600,000 pesos (equal to $300,000 United States gold). This concern employs about three hundred persons in both factory and tannery, and both places are equipped with modern machinery imported from the United States. The shoe factory averages 1,000 pairs per day, their working hours being from 6.30 a. m. to 8.30 p. m. With all this they are not able to keep up with their orders. Their tannery is located about 4 miles from the city and is modern in every respect. A good article of leather is manufactured, nearly all of which is used by the firm in the manufacture of shoes, and the surplus of sole leather is usually shipped to New York. The tannery is in charge of an American superintendent.

GERMANY.

CORK SOLE SUBSTITUTE ONLY EXPERIMENTAL.

Consul-General A. W. Thackara, of Berlin, replies as follows to a New York inquiry requesting further particulars of the cork sole substitute mentioned in Consular and Trade Reports:

The Messrs. Erdmann and Köthner, mentioned in the item extracted from a German paper, prove to be not members of a commercial firm, but two scientific men who have made experiments in their chemical laboratories. A letter from Dr. H. Erdmann, professor at the Königliche Technische Hochschule, Charlottenburg, Berlin, to whom I wrote on the subject, states that it is true that in collaboration with Doctor Köthner he investigated the effect of acetylene on copper under heat, and that they thereby obtained an uncommonly light, porous substance. Doctor Erdmann expressed the opinion, however, that this substance would be too soft to serve as a substitute for cork. They have not authorized anybody to use their name in this connection, and apparently it can be assumed that no commercial use has as yet been made of this substance.

GLOVE MAKING.

AUSTRIA-HUNGARY.

IMPORTANT INDUSTRY WITH LARGE EXPORT TRADE.

Replying to an American inquiry for information concerning the leather glove trade in Austria-Hungary, Consul-General W. A. Rublee, of Vienna, submits the following data:

Leather gloves are manufactured principally in the following places: Aberthan, Joachinsthal, Platten, Prague, Tabor, Pilsen, Theresienstadt, and Dobisch in Bohemia; Brünn, Moravia; Freiwaldau and Weidenau, Austrian Silesia; Graz, Styria; Trieste and Vienna. In Hun-

gary they are made at Arad, Budapest, Dobreczin, Hermannstadt, Kaposvar, Kaschau, Klausenburg, Miskolez, Oedenburg, Pressburg, and Agram. The number of persons employed in the industry is estimated at about 100,000, of whom 30,000 are men and 70,000 women and girls.

The prices paid for making gloves average as follows: For cutting 1 dozen pairs, between 2 crowns 50 heller (about 50 cents) and 4 crowns (about 80 cents). For sewing 1 dozen pairs, between 2 crowns (about 40 cents) and 5 crowns (about $1). The difference in the prices paid in the city and the country is from 30 to 60 per cent.

The value of the leather gloves exported in the year 1905 from Austria-Hungary was 21,917,900 crowns (about $4,400,000). The countries to which the exports were the largest were Germany and England. Other countries supplied in smaller quantities were France, Belgium, the Netherlands, the United States, Canada, Switzerland, Denmark, Roumania, Turkey, Japan, Sweden, Bulgaria, and Russia.

The imports of leather gloves into Austria-Hungary during 1905 reached the value of 1,112,400 crowns (about $222,000), and came principally from Germany, Great Britain, and France, each sending a small quantity. The duty on leather gloves is by weight, 150 crowns (about $30) per 100 kilograms (220 pounds).

FRANCE.

MANUFACTURE IN PRINCIPAL CITIES.

In response to inquiries regarding the manufacture of gloves in France, Consul C. P. H. Nason, of Grenoble, writes:

The cities and towns of France which are largely engaged in the manufacture of gloves are Paris, Chaumont, Millau, and Grenoble. The last named is the largest glove center in France, and for ladies' kid gloves, perhaps the largest in the world.

Aside from commission agents for large glove houses in England and America, the directory of Grenoble for 1906 gives the names of 80 independent glove manufacturers.

The number of men and women engaged in the industry in and around Grenoble is estimated at 25,000.

The wages paid for making gloves vary from $1 to $1.20 for men and from 40 to 60 cents for women per day. For cutting, men are paid according to their skill, from $1 to $2 per day.

The total output of gloves from Grenoble alone was placed at 900,000 dozen pairs in 1898. In 1902 it had declined to 800,000. This decline continued until July, 1905, when a phenomenal increase began, which still continues, and will, doubtless, make the total for 1906 nearly, if not quite, 1,000,000 dozen pairs.

With the recent increase in demand for gloves, especially for long gloves, the prices on the part of manufacturers and retail dealers have been considerably advanced, while the rulings for kid and lamb skins by the merchants in skins are 50 per cent higher than in former years.

BELGIUM.

GREAT FINISHING COUNTRY.

Consul J. C. McNally writes from Liege:

In Belgium the kid glove is the principal article of manufacture in this line. The ladies' glove called "amadis" is considered the more

important, both as to quality and price. Like many other industries in which Belgium is noted, there is a considerable division of labor, some being done at the workshop, while most of the work is done at home under the piecework system.

The finishing qualities of the glove makers in Belgium has attracted the dealers of the neighboring countries, who send in the cut pieces to be finished by the Belgian women. It must be remarked, however, that while considering the perfection of the glove workers in Belgium, the work can be done cheaper than in their own country. The Belgian-made gloves are well received abroad and enjoy a considerable foreign demand. The native German and Dutch skins are used in the manufacture, being well prepared by Belgian cleaners and dyers. The declared value of the importation for 1905 was $1,181,000, and for exportation, $2,242,000.

SADDLES AND HARNESS.

EXTENT OF BUSINESS IN FRANCE.

Responding to a Texas inquiry, Consul John C. Covert, of Lyon, writes that the saddle and harness business is conducted very much the same in France as in the United States.

The wages paid to men are from 96 cents to $1.16 per day, for ten hours' work. There are seven saddle and harness stores in Lyon, which has a population of 700,000 people, including the suburbs. The finished harnesses and bridles are made about the same in France as in the United States. The straps used in the army, especially in the cavalry, are not blacked. Those made for private use are generally blacked. They are all creased and generally rounded on the edges.

HIDES AND SKINS.

MOROCCO.

LARGE EXPORT OF GOAT SKINS—NATIVE TANNERIES DESIRED.

Consul Louis J. Rosenberg sends a clipping from a Seville newspaper on the subject of Morocco's trade in hides and leather, as follows:

According to the latest English statistics for 1904, the export of raw and dressed hides from Morocco amounted to $1,327,591, classified as follows: Goatskins, $688,639; sheepskins, $189,798; calf and oxen skins, $87,548; tanned leather, $2,093, and leather slippers (babuchas), $359,318. While the central provinces—Shania, Ducala, and Abda—are the mainstays to the supply of cereals, the extreme northern and southern points, comprising the Tangier and Mogadore districts, furnish the best class of hides. The export of red and yellow leather slippers (babuchas) was conducted almost entirely by Tangier. The exportation of goatskins by the Mogadore district was more than half of the total shipments of this class of skins.

With no means of transportation other than the "ships of the desert," the total flocks of goats in Morocco are computed by Mr. Aflalo at about 21,000,000 head. It is obvious that the hire of camels for a distance of more than 150 miles, to cover which six days are necessary, implies an almost prohibitive outlay. Hence all merchants

concerned are solicitously looking forward to the introduction of adequate facilities to effect a more rapid and economic outward movement of products pertaining to vast regions as yet inaccessible to commerce. Scientific explorers hold that all the principal rivers from Wad Sebu in the north to Wad Sus in southern Mogadore, might be made navigable. In a similar way, roads which are mere paths might easily be transformed into highways of value to trade.

EUROPEANS DESIRE TO ESTABLISH TANNERIES.

The small concession the powers have requested of the Sultan, whereby Europeans might be granted the right to acquire parcels of land on the coast line not to exceed 7½ miles, would in all probability lead to the establishment of various important industries. In spite of the very considerable trade in skins, but one factory exists in Morocco where leather is tanned according to European usage. Such as they are, however, the Moroccan tanneries produce a most excellent material for slippers (babuchas), which, as seen by the figures, play an important part in the export of leather. The obstacle which has chiefly thwarted the establishment of European tanneries has been the difficulty to find sufficient intramural space at seaports, already populated to excess. Hence the proposal to the Sultan, if accepted, would enable foreigners to buy or lease land in suitable localities for the erection of tanneries and other enterprises.

The notable disproportion between the wool-bearing flocks, estimated at 45,000,000 head, and the export of sheepskins is the result of the unwillingness of the Moors to kill sheep. Even the slaughter of the bovine genus is seriously objected to by the majority at certain times, and therefore the greater part of hides exported to Europe proceeds from animals which have been carried off either by disease or inanition. In fact thousands of head of cattle succumb to the latter during the droughts consequent on an insufficient rainfall in the spring of the year.

The overtures which are awaiting the decision of the Sultan and the likelihood of their favorable reception ought, therefore, to engage the attention of all tanners and manufacturers.

BELGIUM.

IMITATIONS CLEVERLY MADE.

Consul J. C. McNally writes from Liege that, while London and Leipzig are classed as the leading European markets for animal skins, Belgium holds an important place in the finishing of skins and the making up of certain furs.

In Belgium many skins are worked, such as otter, beaver, marten, chinchilla, sable, skunk, mole, lynx, kid, fox, bear, deer, etc. Dressed skins or furs are assorted and treated as cloths, to be utilized in the trimming of clothes, making muffs, etc. The treating and counterfeiting of hare and rabbit skins into resemblance to the higher-priced furs, as beaver, otter, blue fox, etc., has grown to be quite an industry. These skins were formerly used for the making of caps and trimming cheap clothing, but the marked resemblance to the real of these cheap skins has created a great demand for them.

AUSTRIA-HUNGARY.

SOLE LEATHER ADVANCE IN BOHEMIA.

Consul U. J. Ledoux reports from Prague that the combination of Bohemian sole-leather manufacturers is considering at this moment the necessity of putting up their prices a further 10 per cent. They are at the same time discussing whether, in view of the enormous rise in the prices of rawhides, short-time measures should not be resorted to for the purpose of regulating prices.

INDIA.

ABUNDANT CROCODILE SKINS AVAILABLE.

Consul-General W. H. Michael states that a Calcutta trade journal calls attention to the demand for crocodile skins in America, and from time to time has urged the natives living contiguous to crocodile haunts to engage extensively in the business of killing this creature for his skin, guaranteeing that they will be able to sell to American buyers at remunerative prices all the skins they can take.

There are thousands of crocodiles in the lagoons and tide-water streams of India, easily accessible, and there are Indians in plenty to hunt them and take their skins. Consequently there is no reason why a big trade in crocodile skins should not be built up between the United States and India. Persons and companies interested should write to James Luke, esq., assistant editor of The Capital, 98 Clive street, Calcutta, India.

RENEWING FURS.

NEW METHOD FROM RUSSIA.

Consul-General Richard Guenther quotes the Frankfort Didaskalia to the effect that a technical engineer tells of a method which is used in Russia to clean and renew furs.

Bran of rye is heated in an iron or earthenware vessel, being well stirred all the time, until it has become as hot as the hand can stand. The bran is then poured upon the fur and thoroughly rubbed in. The fur is then brushed with a clean brush or pounded till all the particles of bran have been removed. The fur has then gotten back its former luster; even white furs thus treated appear like new.

AMERICA.

SOUTH AMERICA.

BRAZIL.

LARGE INCREASE IN EXPORTS OF SEVERAL COMMODITIES.

Consul-General G. E. Anderson, of Rio de Janeiro, reports that the exports from Brazil for the first six months of 1906 amounted to $104,709,955 gold, as compared with $93,567,076 for the corresponding period of 1905.

The leading exports for the first six months of 1905 and 1906, as published in the Brazilian Review, were as follows:

Articles.	1905.		1906.	
	Quantities.	Value.	Quantities.	Value.
Cotton.....pounds..	11,756,168	$1,056,878	48,035,559	$5,535,381
Sugar.....do....	43,824,172	1,238,875	116,904,247	1,703,139
Rubber.....do....	42,063,828	39,610,444	43,369,671	38,726,498
Cocoa.....do....	14,634,646	1,473,080	20,133,945	2,240,772
Coffee.....bags..	3,481,086	33,439,641	3,016,523	35,544,746
Hides.....pounds..	35,670,666	3,918,531	39,351,290	4,855,200
Mate, herva.....do....	34,053,901	1,859,431	53,543,810	3,718,454
Manganese.....tons..	139,983	1,010,185	62,219	448,829
Skins.....pounds..	2,638,409	1,315,921	2,797,084	1,450,665
Tobacco.....do....	33,455,739	3,132,620	38,812,484	3,474,545
Wax, carnauba.....do....	2,988,286	678,560	4,303,719	1,530,115

The most notable item in the above list is that of cotton, which shows an increase of 36,279,391 pounds, indicating not only that Brazilian cotton is to be considered a part of the general stock of cotton in the world, subject to general demand, but that also Brazil's possibilities in the line of cotton exports merits serious consideration.

IRON MINING AND ITS PROSPECTS.

Considerable interest was aroused in the United States by the report that the Brazilian Government is soon to sell the Ipanema iron mines in São Paulo, and several inquiries have been received from persons who have considered the matter of the purchase of these mines and other mining ventures. The actual prospect, however, is not alluring, and while there may be some very satisfactory developments of the iron and allied industries of Brazil, that development is not coming in a hurry nor is it likely to follow the sale of this Government property. At all events it is safe to say that the sale of this property and the possible development of the iron industries of Brazil do not present anything in the nature of a "snap." As a business proposition, on close margins of profit there may be something in it which merits attention.

The matter of manganese deposits is one which should be passed upon by experts. Most of the shipments of manganese from Brazil are secured in Minas and Bahia, but these by no means mark the limits of possible manganese production in the country. However, manganese production at the present time is so costly that during the current year there would have been no shipments of the ore abroad at all but for contracts made previous to the present high course of international exchange, the price not compensating at the present value of the milreis. Definite figures as to the output of the several mines or the exact cost of production are not available. The actual expense at a Bahia mine is about $6 gold per ton, and with ocean freight a price of $7 to $10 a ton in the United States is not very remunerative at present exchange.

American interests desiring to know more of the Ipanema iron mines, the railroad situation, and general industrial inducements presented by Brazil will probably find it to their advantage to correspond with Dr. Lauro Muller, minister of state for railroads, commerce, and industries, Rio de Janeiro, Brazil.

REMOVING RIO GRANDE DO SUL BAR.

The fact that the contract for the removal of the sand bar at the entrance of the large lake known as the Lagos dos Patos, upon which are located Rio Grande do Sul, Port Allegre, and Pelotas, and for the improvement of the harbor accommodations of these ports is now a reality, opens up possibilities which American capitalists may well heed.

Land is fairly cheap in many portions of the State, but the prospect is that there will be a strong speculative movement in it in a very short time. It is probable that the American white-pine interests which have been looking into the lumber situation of the east coast of South America will be able to locate some pine timber within reach of the ocean. Brazilians familiar with the country predict that with this bar removed the Rio Grande do Sul ports and the country generally will soon rival the River Plata country in prosperity and growth.

NEW SILVER COINAGE.

The coinage of silver money in Brazil subsidiary to its present paper system upon a theoretical gold basis is likely to give a practical object lesson where the only actual circulating medium is paper money, which is practically irredeemable. The minister of finance has announced that the new coins will soon be put into circulation, their face values being 500 reis, 1,000 reis or a milreis, and 2 milreis, and the weight will be 5.000, 10.000, and 20.000 grammes, respectively, the tolerance being 0.025, 0.05, and 0.10, respectively.

At the present price of silver, say 0.655 in New York, the 1-milreis piece will be worth about 28½ cents gold, about 5 cents under the present exchange value of its paper equivalent. Exchange may fall below this value at any time, however, and if exchange under the new government is to be maintaincd at 15 pence, which is the report now generally accepted, the difference between what is regarded as irredeemable paper and good silver would be so little that all of the silver would doubtless go out of circulation at once. A slight increase in the value of silver would not only take the silver money out of circulation but

would take it out of the country. Brazilian business interests seem to be paying no attention to the proposed change. At all events, there is no prospect of the new coinage making any material difference in the course of financial transactions.

RICE CULTIVATION.

The extending culture of rice and the imposition of a larger duty thereon in Brazil caused the rice imports to decrease from 100,898 metric tons in 1902 to 58,702 in 1905. But in those sections of Brazil where rice is not grown there has been an increase in imports. Indian rice has been arriving directly or via Germany, and American rice exporters who have been reaching out for a market in Brazil will find it hard to obtain a foothold unless they can undersell.

PERNAMBUCO'S DEPRESSION.

LOW PRICE OF SUGAR THE CAUSE—BUT IMPORTS INCREASE.

Vice-Consul Enrique Bachilleres, reporting on the foreign trade of Pernambuco, Brazil, does not give the exports from that country. He says:

The sugar crop was above the average, but the price was so low that in many cases it did not cover the cost of production. As sugar is by far the most important staple production, the general prosperity of the community depends upon the prices ruling for that article as well as upon the abundance of the crop. An agreement was made with the railways and shipping companies to reduce freights on sugar 20 per cent to relieve the situation. The 1905–6 sugar crop amounted to 2,049,990 bags.

In 1905, 10,200 barrels and 2,000 bags of flour were imported from the United States, against 98,542 barrels and 10,100 bags in 1904. The decrease was caused by the large sale of Argentine flour, owing to its lower price. The quantity of kerosene imported from the United States in 1905 was 317,929 cases, an increase of 25,301 cases over 1904. Other American products growing in popularity and of increasing commercial importance are barbed and woven wire, sewing machines, butter, machinery, dry goods, shoes, phonographs, canned fruit, and provisions.

There is a splendid opening for capitalists and others who desire to embark in cotton growing and planting of the manicoba rubber tree. The soil and climate are most favorable to both of these cultures.

The imports into Pernambuco for 1905 amounted to $14,328,676, an increase of $3,227,809 over 1904. The principal articles of import were:

Articles.	Value.	Articles.	Value.
Animal products	$157,997	Paints	$118,320
Coal	380,330	Paper, books, etc	256,670
Cotton goods	1,830,167	Perfumery, soap, etc	65,340
Crockery and glassware	172,330	Pipe shooks	170,712
Groceries	6,785,719	Railroad cars	286,347
Iron and steel articles	1,384,086	Saddlery, shoes, etc	51,650
Jute and hemp goods	211,786	Silk goods	71,037
Leather	137,939	Tar, oil, etc	125,772
Machinery, tools, etc	954,300	Woolen goods	150,829

PARAGUAY.

FOREIGN COMMERCE.

INCREASE IN AMERICAN IMPORTS—TRADE IN GENERAL.

Consul John N. Ruffin transmits from Asuncion a brief outline of the imports into Paraguay from European countries and America during the years 1902, 1903, 1904, and 1905, as follows:

General imports into Paraguay in 1902 fell short of the year 1900 by $29,360, and of the year 1901 over half a million dollars. The year 1904 exceeded the year 1903 by $13,906. The trade of the United States with Paraguay last year by direct importation alone was increased by 20 per cent, but there will never be any large increase in American trade with Paraguay until the American merchant subscribes to the conditions reigning here, viz, four, six, nine, and twelve months' credit; also to the measurements, packing, etc., which are requested. Germany has made the most noticeable advance in trade with this country because she gives ample credit and makes the articles to suit the whims of the Paraguayan buyer. Germany also supplies many American goods, as well as imitations.

The bulk of American goods finds its way into Paraguay through Argentina. Our trade has been on a steady increase, but indirectly as above mentioned. The Argentine merchants have large capital and can meet the conditions of payment in New York prescribed by the American merchant and resell to Paraguay on the long term of credit. The Argentine Republic, which is chiefly an agricultural and pastoral country, last year made a remarkable leap upward in her trade with Paraguay in manufactured articles, the larger portion of which is due to the great quantity of American goods she shipped, which are not credited to America in the customs statistics. England, Germany, and France, also Spain, have large establishments here which import direct from the mother country and are assisted in the same by banking facilities—that is, direct banking relations, which each of them enjoy with Paraguay.

AMERICAN INATTENTION TO ORDERS.

There are some serious complaints made here against the inattention of American merchants. One large machinery importer told me he sent orders to two American houses, accompanying same with money, five months ago, and that up to now he has not received a communication from them in any form. Another ordered a quantity of machinery eight months ago, sending a considerable sum of money with the order also, and in spite of having sent several letters and two or more cables he can get no word from the merchant there. Whether the American merchants are overcrowded with work, so that they can not fill the orders, or have arranged to do all their business through the Argentine merchants who have offices in New York, I am unable to say, but this inattention does our trade immense harm. I could give other instances, but the foregoing are serious enough. However, in spite of all, I am glad to say American commerce is on the increase, and if only the Americans will relax their rule of cash-with-order a little and give more attention and prompt replies to orders a much larger increase will be noted. In Spanish-American countries

attention goes a great way. A tabular form showing imports from principal countries from 1902 to 1905 is herewith presented:

Countries.	1902.	1903.	1904.	1905.
England	$638,355	$1,303,191	$1,168,198	$1,528,629
France	420,273	366,940	311,650	491,767
Germany	327,314	640,872	887,668	1,091,601
Argentina	221,402	454,758	435,544	654,678
Italy	179,382	269,667	294,809	409,447
United States	151,098	153,506	125,296	150,393
Spain	60,793	189,403	206,652	244,791

NOTE.—The direct trade of the United States with Paraguay as given by the Bureau of Statistics shows the following comparatively small amounts:

	1904.	1905.	1906.
Imports from Paraguay	$416	$2,205	$750
Exports to Paraguay	21,333	39,180	51,917

ARGENTINA.

THE EXPORT TRADE.

THE REPUBLIC STEADILY INCREASES PRODUCTS AND SHIPMENTS.

Consul-General G. C. Cole sends the statement of a Buenos Aires newspaper that the principal exports from Argentina for the first eight months of 1906, with comparisons, were as follows:

	1906.	1905.		1906.	1905.
Dry ox hides...number..	1,576,666	1,158,008	Maize.....tons..	1,590,851	1,503,705
Salt ox hides.....do....	1,085,659	1,228,873	Flour.....do....	81,825	85,200
Dry horse hides....do....	85,881	57,616	Bran .....do....	108,398	100,385
Salt horse hides....do....	9,461	104,105	Pollards.....bags..	39,300	85,858
Sheepskins.....bales..	32,097	37,147	Oilseed .....do....	140,847	127,395
Hair .....do....	2,904	4,113	Hay .....bales..	1,168,631	671,284
Tallow .....pipes..	16,589	22,400	Quebracho.....tons..	199,950	169,958
Tallow.....casks..	53,981	69,016	Quebrachoextract.do....	85,382	20,670
Tallow.....hogsheads..	2,362	14,609	Butter .....cases..	94,560	136,562
Goatskins.....bales..	7,397	8,701	Carcasses mutton, number	2,217,477	2,426,458
Wool.....do....	286,304	319,071	Beef.....quarters..	1,422,407	1,286,460
Wheat.....tons..	2,011,358	2,349,986			
Linseed.....do....	386,694	502,576			

During the month of August 124 ocean-going steamers entered the port of Buenos Aires, of 290,363 tons net register and with 269,053 tons of general cargo, 11,654 passengers and 42,000 tons of coal, not one of which sailed under the American flag.

SHIPPING TO BUENOS AIRES.

NEW REGULATIONS FOR STEAMERS AS TO INFLAMMABLES.

Minister A. M. Beaupré, of Buenos Aires, transmits the translation of an Argentine decree qualifying the decree of February 5 which provided that certain specified quantities of various specified inflammables may be discharged under defined conditions at Buenos Aires. This decree will be of special interest to American shippers, as most steamers from America carry inflammables among their general cargo. It reads:

For the better execution of the decree of February 5th last in regard to the discharge of inflammables in the port of La Plata, it is advisable to designate the articles to which said decree refers and to establish rules for the guidance of the steamers carrying these inflammables in small quantities mixed with their general cargo; and

in view of the report of the national chemical bureau, the President of the Republic decrees:

ART. I. The inflammables whose discharge in the port of La Plata is obligatory, in conformance with article 7 of the decree of February 5 last, are the following: Sulphuric acid, nitric acid, flourhydric acid, alcohol in casks or demijohns, turpentine, sulphur, benzine, calcium carburate, ether in general; phosphorus in general, matches, of wood, wax, stearine, or any other material whatsoever; gases in general in cylinders, naphtha and ligroin,[a] and similar products of petroleum or gas tar and sulphur of carbon.

ART. II. However, the entrance is permitted into the port of the capital of boats carrying the inflammables enumerated above in quantities specified below, it being understood that when more than one article is carried the total of all the inflammables carried by the boat shall not exceed 25 tons: Sulphuric acid, 60 drums; nitric acid, 50 drums; flourhydric acid, 50 bottles; alcohol in casks, 50 casks; alcohol in demijohns, 100 demijohns; turpentine, 50 casks; sulphur, without limitation; benzine, 50 boxes; calcium carburate, 50 boxes; ethers in general, 50 casks; ethers for medicinal use, without limitation; matches of wood, wax, stearine, or any other material whatsoever, 3 boxes; gases in general, in cylinders, 20 cylinders; kerosene, 100 boxes; naphtha and ligroin[a] and similar products of petroleum or gas tar, 50 cases; and sulphur of carbon, 50 cases. These articles shall be lightered in barges which shall discharge at the places designated by the customs authorities with a view to their easiest transportation, with the attendant precautions, to the established deposits.

ART. III. The barges that shall receive the inflammables shall hoist a red flag of at least a meter (39.37 inches), and must be towed to their destination. The cable used in towing them shall be of steel.

ART. IV. The customs police shall give special care to the observation of the discharge so that it may be effected in the best possible manner to avoid all dangers of fire, and shall take care that the barges shall so operate as at any moment to be able to abandon the place occupied by them.

CENTRAL AMERICA.

COSTA RICA.

IMPORTS DECREASE—COFFEE AND BANANA EXPORTS SHOW GAINS.

Consul J. C. Caldwell, writing of the foreign trade of Costa Rica, shows a large balance of trade in favor of that country. He says:

The total trade of Costa Rica for the calendar year 1905 amounted to $12,863,955, viz, imports, $4,769,035, and exports, $8,094,920. The trade, by countries, is shown in the annexed table:

Countries.	Imports.	Exports.	Countries.	Imports.	Exports.
United States	$2,235,671	$3,793,195	Spain	$122,822	.....
United Kingdom	940,969	3,808,885	Other countries	449,921	$85,141
Germany	615,101	300,973			
France	249,821	106,726	Total	4,769,035	8,094,920
Italy	154,730	.....			

The percentage of imports from the United States was 46.88; United Kingdom, 19.73; Germany, 12.90; France, 5.24; Italy, 3.24; Spain, 2.58, and all other countries, 9.43. Compared with 1904, the imports decreased approximately $750,000, while the exports increased $1,000,000. Imports from the United States and the United Kingdom each decreased about $275,000, Germany $150,000, and France $40,000. Cognac, which comes almost entirely from France, decreased $60,000. Pharmaceutical products, the greater part of which come from the United States, show a heavy decrease, but Germany made

[a] Mr. Beaupré explains that ligroin is that part of petroleum which has a boiling point between 90° and 120° centigrade.

considerable gain in these articles during the year. The imports of railway materials decreased about $240,000—from England, $100,000; Germany, $35,000, and the United States, $70,000. Lard, which practically all comes from the United States, increased over $40,000.

The increase in exports was largely due to the shipments of coffee and bananas, of which the former showed a gain of $700,000 and the latter $600,000. About 1,200,000 more bunches of bananas were exported than in 1904. Of the total shipments the United States took 5,045,321 bunches and England 2,237,779 bunches. The exports of rubber, hides, mahogany, and other woods show only slight changes.

NICARAGUA.

GOVERNMENT OFFICIAL MAKES REPORT ON NATIONAL PROGRESS.

Consul José de Olivares, of Managua, invites attention to the official report just completed by the Nicaraguan minister of finance, Don Felix Romero, relative to an extended visit made by him to the Department of Zelaya, situated in the extreme eastern section of that Republic.

The report contains much of interest, not only with respect to the department mentioned, but to the country lying between the Caribbean coast and Lake Nicaragua. Much space is devoted to the new railroad now in course of construction by the Government between the ports of San Miguelito, on Lake Nicaragua, and Monkey Point, on the Caribbean coast, on which about 500 laborers are at present employed.

The Government is prepared to push the work to completion and it is estimated that within two years the road will be in operation. This will result not only in opening up a rich and little-explored agricultural and mineral region, but also in establishing a transcontinental transportation service by train and steamer between Corinto, on the Pacific, and Monkey Point, on the Atlantic side, which distance can then be traversed, at a conservative estimate, in thirty-six hours.

The report also points with regret to the appalling decadence of San Juan del Norte as a hitherto important commercial port and predicts its total disappearance from the map, unless the Government can find means of assuring its existence. This is followed with suggestions as to how the port in question might be made to recover its former prestige and prosperity.

Attention is called to the need of increased navigation facilities on the east coast of Nicaragua, the obstacles in the way of attaining the same, and the manner in which the latter might be overcome. In conclusion the report unfolds a project for the development of banana lands and the general betterment of the industry.

WEST INDIES.

JAMAICA.

LARGE PURCHASES FROM GREAT BRITAIN—LARGE SALES TO THE UNITED STATES.

Vice-Consul W. H. Orrett, of Kingston, furnishes a report on the commercial conditions of Jamaica, which shows that the United States

buys over 57 per cent of the island's exports but supplies only 39 per cent of the imports. He says:

Jamaica's economic condition is daily improving. During the fiscal year ended March 31, 1906, the exports of fruit were valued at $4,731,562, an increase of $1,802,824 over 1905.

The cultivation of fruit is susceptible of enormous development and the planting of bananas has of late years assumed important proportions. Stock farming also constitutes an important resource to the colony. Several dyewood factories are being operated, the product finding a large market in the United States. There are several fruit-canning factories producing preserves of excellent quality. Native tea is grown; a butter factory and one for curing bacon and hams have recently been started, their products being used by the local merchants.

The value of the imports for the year ending with March, 1906, was $8,943,527, exclusive of coal, coin, and bullion, as against $7,710,176 for 1904, an increase of $1,233,351. The exports for the same period amounted to $8,969,835, against $6,991,822 for 1905, an increase of $1,978,013. The percentage of the imports from and the exports to the several countries is shown in the annexed table:

Countries.	Imports.		Exports.	
	1905.	1906.	1905.	1906.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
United States	42.8	39.0	53.4	57.4
United Kingdom	46.8	48.9	18.8	19.3
Canada	6.9	8.1	8.8	6.1
Other countries	3.5	4.0	19.0	17.2

The total consumption of coal for the year was 77,204 tons, of which the United States supplied 39,730 tons, the rest coming from England. There is no import duty on coal. Cotton goods to the value of $287,109 were imported from the United States, as against $256,406 worth from the United Kingdom. The trade with the United States would be much larger if the manufacturers would extend the time of credit from three to six months.

In hardware, cutlery, and agricultural implements the share of the United States, though smaller than that of the United Kingdom, is growing rapidly. Out of a total imports of $243,325 the United States supplied about 25 per cent. The value of boots and shoes imported was $252,571, of which the United States contributed $144,788 worth. Of office and household furniture the United States furnished $26,080 worth out of a total import of $47,551. The markets for lumber, shingles, building materials, flour, pork, and meal are exclusively in the hands of United States shippers. The import of petroleum was valued at $116,796, all of which came from the United States. The United Kingdom supplies the bulk of the manufactures consumed on the island.

ST. THOMAS.

IMPORTS OF THE ISLAND.

Consul C. H. Payne reports that the imports into St. Thomas, Danish West Indies, for the fiscal year ended March 31, 1906, amounted to $833,907. Of these the United States furnished $407,561 worth; Germany, $61,319; United Kingdom, $166,645; France, $20,176; British

West Indies, $58,639, and Denmark, $39,464. The leading articles from the United States were: Breadstuffs, valued at $73,619; provisions, $15,444; manufactures of iron and steel, $8,151; boots and shoes, $16,719; manufactures of wood, $22,717; cotton and other fabrics, $10,573, and coal, $201,308.

CANADA.

NATIONAL CHANGES.

INCREASED AID TO PROVINCES—ABOLISHMENT OF COMMERCIAL TRAVELERS' TAX—FEDERAL CONTROL OF SEA COAST.

Consul-General John G. Foster supplies a detailed statement of the resolutions of the conference of Canadian provincial premiers recently held at Ottawa—and in future to be held annually—of which the following is a summary:

It was decided to obtain increased subsidies to the Provinces from the Dominion treasury "and for the award of an amount sufficient to meet the costs of the administration of criminal justice, not exceeding 20 cents per head of population," with an additional allowance to British Columbia for civil government of $100,000 annually for ten years.

The conference recommends to each legislature to abolish the special tax on commercial travelers, provided that this recommendation does not apply to any license payable under any act concerning the sale of intoxicating liquors, and that the legislatures of the several Provinces shall make no discrimination in the taxation of companies incorporated by the Dominion and companies incorporated by the Province wherein such tax is imposed.

To effect these changes an amendment of the British North America act by the Imperial Parliament will be necessary, but the Dominion premier, Sir Wilfrid Laurier, informed the representatives of the Provinces that although he could not give them a subsidy for the administration of criminal justice, he would approve the other increases requested in the resolutions, and would apply next spring to the Imperial Parliament for the necessary legislation.

AMOUNT OF INCREASE.

Under the existing arrangement the Provinces receive specific subsidies from the Dominion government for the support of the government and legislature, and in addition per capita subsidies or annual grants equal to 80 cents per head of their population as established for the Provinces of Ontario and Quebec by the census of 1861 and for the other older Provinces by the last decennial census, Alberta and Saskatchewan being arbitrarily assumed for the purpose of this computation to have populations of 250,000 each. It is now proposed that the specific subsidies shall be computed on the following basis:

(*a*) Where the population is under 150,000, $100,000. (*b*) Where the population is 150,000, but does not exceed 200,000, $150,000. (*c*) Where the population is 200,000, but does not exceed 400,000, $180,000. (*d*) Where the population is 400,000, but does not exceed

800,000, $190,000. (*e*) Where the population is 800,000, but does not 1,500,000, $220,000. (*f*) Where the population exceeds 1,500,000, $240,000.

The per capita subsidy is to be at the rate of 80 cents per head of population, as ascertained from time to time by the last decennial census until the said population exceeds 2,500,000, and at the rate of 60 cents per head for so much of the population as may exceed 2,500,000. The two subsidies above referred to paid to the Provinces at present with the proposed increases are as follows:

Provinces.	Specific.		Per capita.	
	Present.	Proposed.	Present.	Proposed.
Ontario	$80,000	$240,000	$1,116,872	$1,746,357
Quebec	70,000	240,000	889,252	1,319,118
Nova Scotia	60,000	190,000	320,000	367,659
Manitoba	50,000	180,000	123,004	203,957
British Columbia	35,000	[a]150,000	78,588	140,520
Prince Edward Island	30,000	100,000	87,262	82,607
Alberta[b]	[0,000	150,000	200,000	200,000
Saskatchewan[b]	50,000	150,000	200,000	200,000
New Brunswick	.....	180,000	.....	264,896

[a] $100,000 additional special grant proposed for British Columbia.
[b] For various purposes the provinces of Alberta and Saskatchewan each receive in the aggregate from the Dominion treasury the sum of $1,124,125, and the total payments by the Dominion government to all of the provinces amount at present to $6,883,988 per annum.

BRITISH COLUMBIA DISSATISFIED—INTERNATIONAL FISHERIES.

The premier of British Columbia declined to accept the proposed increase of subsidy in satisfaction of the claims of his Province, insisting that a much larger allowance should be given. After making formal protest, therefore, he withdrew from the conference. In this protest he stated that British Columbia had contributed, since joining confederation, $19,000,000 more to the Federal exchequer than had been expended in the Province, and that for the past thirty years the average yearly per capita expenditure of the several Provinces of the Dominion had been as follows: British Columbia, $11.86; Manitoba, $4.31; Prince Edward Island, $2.94; Quebec, $2.44; New Brunswick, $2.16; Ontario, $1.79, and Nova Scotia, $1.65.

While no formal resolution was passed relative to the matter, it has been announced in the newspaper press that an agreement was practically reached whereby the Federal government will in future exercise complete control of the seacoast and international boundary fisheries free from any claim of provincial jurisdiction.

COMMERCIAL GROWTH.

HEAVY INCREASE IN THE DOMINION'S IMPORTS AND EXPORTS.

The first quarter of the present financial year of the Dominion of Canada closed September 30, with a total aggregate foreign trade of $150,435,000, being $26,774,479 more than for the same period of 1905.

The imports, including coin and bullion, for this period were $80,141,527, a gain of $12,148,682. Exports of all kinds reached a total of $70,293,473, an increase of $14,625,797 as against the first three months of the previous fiscal year. Exports of domestic products were $9,312,435 more, the total being $61,938,024. One class of exports showed a falling off, viz, fisheries, amounting to $380,000.

The largest increase in exports of domestic products was animals and their produce, $3,214,332, lumber came next with a gain of $3,125,346, and agricultural products third with $2,515,621. The total betterment in the classes of exports in which the farmers are mainly interested was $5,729,953. Exports of manufactures were $326,238 ahead of the first three months of 1905. The comparative statement of imports and exports for the quarter is as follows:

Imports.	1905.	1906.	Domestic exports.	1905.	1906.
Dutiable goods	$41,516,041	$48,003,224	The mine	$7,396,750	$7,843,749
Free goods	23,796,465	30,405,020	The fisheries	3,100,871	2,720,357
			The forest	11,176,690	14,302,036
Total	65,312,506	78,408,244	Animals and their produce	20,984,300	24,198,632
Coin and bullion	2,680,339	1,733,283	Agriculture	4,827,623	7,343,244
			Manufactures	5,120,621	5,446,859
Grand total	67,992,845	80,141,527	Miscellaneous	18,734	83,147
Duty collected	11,213,696	12,587,190	Total	52,625,589	61,938,024

COMMERCIAL AGENCIES.

BRITISH GOVERNMENT PROMOTING TRADE THROUGH COMMISSIONERS.

Consul Gebhard Willrich, of St. John, New Brunswick, writes that the presence there of Richard Grigg, appointed by the British Board of Trade of London as commissioner of trade and commerce for Canada, and his appearance at a special meeting of the St. John board of trade emphasizes the desire of the English Government for the establishment of a closer trade relationship between Canada and the mother country with a view of securing a larger share of the import trade of the Dominion. The consul continues:

The London board constitutes a department of the British Government, the president of this board having a seat in the cabinet. This board takes cognizance of the commercial affairs of the whole empire, and has sent out commissioners of trade to Australia, Africa, and Canada.

Mr. Grigg in his address said that one of the methods to strengthen the bonds between the motherland and the Dominion was to be the appointment of commercial agents at the main centers of trade in Canada, such agents to gather trade information and to communicate the same to the intelligence department of the board, and otherwise to make every effort for the promotion of trade between Canada and England. He said he was authorized to appoint nine of such agents in the Dominion at a salary of $500 each, and that he contemplates making these appointments at St. John, New Brunswick, Halifax, Nova Scotia, Quebec, Montreal, Ottawa, Toronto, Hamilton, Winnipeg, and Vancouver.

Consul Willrich remarks that as the result of his observation of the proceedings at this meeting between the English commissioner and the business men of the St. John Board of Trade, he may say, that while there was every appearance of good will for the objects and purposes of Mr. Grigg's mission, there was likewise a clear and emphatic declaration that Canadian merchants would not pay 1 cent per pound more

for merchandise, or 1 per cent more for English money, because of their loyalty to the motherland, than such merchandise or money could be had for elsewhere.

DUTY ON WIRE.

One of the local merchants, after pointing out the many advantages enjoyed by the United States by virtue of nearness, the ease of supplying goods needed, the absence of delay, often so vexatious when ordering goods from the mother country, the similarity of tastes of Americans and Canadians, etc., also spoke of the advantages of a hitherto low tariff on many articles imported by Canadians from America, needed by the Canadian consumer in greater quantities than Canadian manufacturers were able to supply, but gave it as his opinion that a strong effort would be made by Canadian manufacturers of wire fence goods at the coming session of the Dominion Parliament to induce the Government to favor an increase of the duty on all such wire coming from the States. He claimed that Canadian manufacturers were now in the position to supply the home market, and that there should be no opposition to the additional duty, providing the Dominion government, and especially the Canadian farmer, could be convinced that such increase of duty on the American wire goods would not enhance the price of the manufactured product to the Canadian consumer, which he claimed would not be the case.

This avowal of the manufacturer, coming out incidentally during the discussion of the much desired advancement of Canadian manufactures is mentioned here in order to apprise American manufacturers of the proposition for an increase of duty.

DRY GOODS TRADE.

A prominent dry goods merchant strongly intimated that, all things equal, the merchants in their line would prefer to buy of England, but that they were confronted by the great trouble of getting their orders filled by English manufacturers, as it had taken sometimes three to four months, and even longer, to get the goods, after the order was given, which might have been had within a week from the United States. Other merchants talked very much along the same lines, most of them stating the main difficulty in the way of a greater trade between the merchants here and the mother country to be this difficulty of getting their orders filled in a reasonable time from England, which brought from the commissioner the frank avowal that at this time it would be difficult indeed to bring about a change for the better because of the great prosperity of English manufacturers, who just now were so rushed with orders that they could not fill them for months to come. England, he claimed, was not asleep, as had been intimated by some, but was more prosperous than ever. His mission was not so much for the advantages to be gained at present as for the future. The meeting closed with the offering and adoption of the following resolution:

Whereas Mr. Grigg has been delegated by the British Board of Trade to visit the Dominion of Canada with a view of obtaining information and data for the purpose of ascertaining in what way trade can be increased with the mother country to the mutual advantage of both; therefore

Resolved, that the board of trade heartily approves of the proposition made by Mr. Grigg to appoint commercial agents in the different provinces of the Dominion to gather such information as shall promote closer business relations between the mother country and the Dominion of Canada.

CANADIAN INDUSTRIAL COMPETITION.

While holding in common with the merchants here that much good may result from the mission of Mr. Grigg, to both Canada and England, I am, nevertheless, inclined to think from all I have heard and seen while here that American merchants and manufacturers need entertain but little fear for their trade with Canada from an increasing commercial activity of Great Britain, inasmuch as they can hardly be dislodged from their present vantage ground, but a diminution of American trade with Canada, if at all, must arise by virtue of the natural and inevitable development and growth of Canada's home industries, assisted materially by American capital and mechanical skill, the stimulating force of which even now can be observed in many of the most important industries of the Dominion of Canada.

TRADE BY PROVINCES.

Consul Willrich, also reports on the foreign trade of Canada, by provinces, for the last six months of 1905, as follows:

Province.	Imports.		Exports.	
	Dutiable.	Free.	Domestic.	Foreign.
Ontario	$34,581,566	$24,912,564	$31,276,913	$1,661,657
Nova Scotia	3,933,765	3,421,797	7,767,476	142,151
Quebec	28,604,256	20,592,176	69,754,907	4,687,038
New Brunswick	2,009,787	1,942,294	7,060,539	101,882
Prince Edward Island	134,819	163,325	514,696	1,751
Manitoba	6,466,208	2,159,343	567,538	63,747
British Columbia	5,195,290	1,336,536	10,428,611	302,511
Northwest Territory	1,202,692	893,606	323,428	10,127
Yukon	590,144	187,104	5,486,621	151,138
Total	82,718,527	55,608,745	133,180,729	7,122,002

NEW REGION OPENED.

TRADE OPPORTUNITIES OFFERED BY NEW RAILWAYS FROM TORONTO.

Consul E. A. Wakefield, of Orillia, reports that quite a large proportion of the mileage of both the new railways to connect Toronto with Sudbury has been completed.

Since November 5, trains have been running regularly between Toronto and Parry Sound on the James Bay Division of the Canadian Northern Railway. This is a stretch of 150 miles, and rails have already been laid some miles north of Parry Sound. The remaining portions are being pushed to completion as rapidly as possible. The new Canadian Pacific Railway branch connecting Toronto and Sudbury is now in operation for 50 miles out of Toronto, and early in the spring will be in operation to Parry Sound.

With the completion of these lines a new impetus will be given trade throughout the sections of Ontario tapped by them. These lines should be very beneficial to Toronto, from a commercial standpoint, and to American manufacturing centers near the Niagara frontier. They pass through sections supposed to contain valuable mineral deposits; also some timber lands not before accessible. While the trade first obtained in traveling over the new lines may not be very considerable, it will develop, and is certainly worth looking after. The country is prosperous, wages are high, and money is plenty.

RUBBER INDUSTRY.

EXTENSION OF PLANTATIONS.

STRAITS SETTLEMENTS.

EXTENSIVE TREE PLANTING IN THE MALAY PENINSULA.

According to Consul-General D. F. Wilber, of Singapore, a great boom in the planting of rubber throughout the Malay Peninsula, in the Federated Malay States and Johore, has taken place.

It has proven a lucrative business in many instances for promoters, who have floated company after company until, at the present time, there are listed in the daily papers of Singapore eighteen rubber companies owning plantations in the above countries, most of which were organized during 1904, 1905, and 1906. They are capitalized all the way from $60,000 to $1,500,000, a few being quoted in the neighborhood of par, but most of them at a premium, some at 200 to 500 per cent. None are given as having any reserve, and the high value placed on all is based on the prospects of returns several years hence, when the plantations are expected to be covered with mature trees which will be of sufficient age to give returns. Some have a small portion of trees old enough for tapping, and all are clearing large tracts every year and setting out young trees, most of which belong to the Para variety. The Rambong (Ficus elastica) has proved less productive, the younger trees of this variety yielding quite well to start with, but afterwards give disappointing results and is less hardy than the Hevea and said to be more subject to caterpillars, etc.

TIN MINING ANNOYANCE—ACREAGE AND RENT.

Many of these plantations are in the vicinity of the mining districts, and the trees have been seriously affected by the calcining of arsenical ores. The report of the United Planters' Association of the Federated Malay States for 1905 says: "This process of treating arsenical tin ores is one that has become a most serious source of danger alike to the health and comfort of the community and is a menace to all surrounding vegetation. The effect is said to spread for at least 10 miles, and we are aware that at least 5 miles from the main center of calcination operations the jungle is destroyed." It is further stated "that the Government is taking strong measures and forbidding the calcinating of arsenical tin ores unless done in proper furnaces which will concentrate the arsenic, so as to prevent the fumes becoming a danger to health, comfort, and property."

The report of the United Planters' Association referred to shows that within the association there is owned by its members in the native States of Selangor, Negri Sembilan, and Perak a total of 134,664 acres, 21,266 of which are now in rubber, 3,212 acres in coffee, 11,538 acres

rubber and coffee interplanted, 2,463 acres in cocoanuts, 928 acres in sundries, and 96,114 acres uncultivated.

Considerable complaint resulted from the raising by the Federated Malay States Government in December, 1905, of quitrents for agricultural land from $1 (about $0.57 gold) to $4 ($2.28) for first quality land and $3 ($1.71 gold) for second quality land after the first six years. Shortly after the increase in quitrent for land was announced the export duty was gazetted as raised from 1½ per cent to 2½ per cent. Efforts were made to induce the Government to reduce price of quitrents, but they refused to modify their decision in any way.

PLANTATION METHODS.

Vice Consul-General G. E. Chamberlin, of Singapore, states that the following figures, compiled from information furnished by English planters of experience now residing in the Federated Malay States, gives the estimated cost and returns for the first eight years in opening up of Para rubber estates in the Malay Peninsula, 500 acres being taken as a basis, clearing and planting 250 acres per annum, and caring for same:

First year's expenses, $10,360; second year, including the opening of 250 acres and the keeping up of the first 250 acres, $13,440; third year, keeping up of 500 acres, $8,400; fourth year, the same kind of work, $8,400; fifth year, similar work, $8,400; sixth year, keeping up 500 acres, $8,400; new buildings for superintendent and other employees, and stores and sheds, $6,440; collecting and curing 50,000 pounds of rubber, at 11.2 cents per pound, $5,600, making a total for the year of $20,440; seventh year, keeping up the 500 acres and collecting and curing 150,000 pounds of rubber, $25,200; eighth year, keeping up the 500 acres and collecting and curing 200,000 pounds of rubber, $30,800, making a total expense for eight years of $76,440.

RETURNS TO PLANTERS.

It is estimated that a return of at least one-half pound per tree could be secured from 5-year-old trees, but calculations are not made on anything until the sixth year, when it is certain that rubber planted on good alluvial land will yield at least 1 pound per tree. Planting 14 by 14 feet there should be 222 trees to the acre, but the following estimate of returns is based on 200 trees per acre. Present quotation for fine Para rubber is 5s. 6d. per pound, equal to $1.36 United States gold, the price at which returns are figured: Sixth year, 250 acres, or 50,000 trees, at 1 pound per tree, at $1.36, $68,000; seventh year, 250 acres, at 1 pound per tree, $68,000; 250 acres, at 2 pounds per tree, $136,000, a total for the year of $204,000; eighth year, 500 acres, at 2 pounds per tree, $272,000; total returns for eight years, $544,000; less expense for eight years, $76,440; net returns for eight years, $467,560.

Several millions of Para rubber trees have been planted in the Federated Malay States during the past five years since the growing demand for rubber and the success which had attended the planting of a few specimens several years ago began to attract the attention of planters. Experimental tapping of these older trees has proved satisfactory. As much as 12 pounds of rubber has been extracted in two years from a tree 13 years old in the Penang gardens without any

injury resulting, although the soil in that particular place is not considered favorable for rubber planting.

There is quite an amount of the lower-grade rubber produced in this section, but planters are now paying more attention to the better grades, and the next few years will show a large increase in the output of Para rubber.

AFRICA.

INCREASED PRICE LEADS TO VANDALISM.

Consul-General Richard Guenther, writing from Frankfort, Germany, says that the ever-increasing price of caoutchouc or rubber not only in the countries of its consumption but also in those of its production, makes the following statements of the governor of the ivory coast of Africa, Mr. Clozel, in his book just published, "Dix ans à la Côté d'Ivoire," very interesting.

He states that this increase of the price of caoutchouc is accompanied by grave consequences, as it gives rise to a perfect system of vandalism. The European traders have engaged buyers from Senegal or the Sudan, who frequently are persons little to be recommended. They in turn again employ native subagents. They induce the negroes to tear out the roots of the caoutchouc lianes because these contain a great deal of caoutchouc. This method of course destroys the plant.

Mr. Clozel calculates that in twenty years not a single caoutchouc liana will exist if this course is continued. As the country is settling up and cleared the liane is constantly pushed back farther and farther. One can not rely upon artificial plantations, as the plant does not yield caoutchouc for several years, and Europeans as well as natives look only to immediate profits. An improvement could only be accomplished by closing the offices in the interior of the country and have the caoutchouc brought to the coast, as was formerly done. In this way the country would get rid of the maurauders from Senegal and the Sudan, who impoverish it without giving anything in return. For the future of the country rice and cotton are the most important products, the cultivation of which should be encouraged in every way.

BRAZIL.

WILD RUBBER INTERESTS FEAR PLANTATION COMPETITION.

Consul-General G. E. Anderson reports from Rio de Janeiro that it is a somewhat notable fact that some of Brazil's chief authorities on the rubber situation are disposed to take a gloomy view of the future of the rubber-producing industry in that country. He writes:

This view, indeed, has taken the form of a state paper. In his message to the legislative assembly of the State of Amazonas, the State which produces by an immense margin the greater portion of the rubber supply of the world, Governor Constantine Nery takes the view that the development of the plantation rubber production of the world is likely to have serious influence upon that of Brazil. In the course of his message, just published, he says:

> Our principal source of wealth, rubber extraction, is threatened with a somewhat gloomy future on account of competition which promises us a struggle at an early date. At our last meeting I had occasion to say: "We ought not to forget that in

the future our products may meet with great competition or may suffer diminution in quantity, and we ought to watch the growing production of manicoba rubber in other States of the Republic and of like products in Africa, Asia, and Central America which are already competing with us and so constitute a great menace to the continued value of our chief article of export. Thus protection extended to the agriculture of our State will be a preventive measure and one that will assure our future."

To-day my forebodings are still more gloomy and are confirmed by the remarks of our consul-general in Liverpool, who says in his report: "During the last four years a great quantity of Hevea seeds have been imported here and during that time about 60,000 acres have been planted in Ceylon and an equal number in the Straits Settlements, in the proportion of 250 trees to an acre. The plantations have been systematically and scientifically made in such a way that in some cases after three years the trees have been sufficiently strong to be tapped and generally after six as against eight or ten in other parts of the world. Almost all the rubber imported here comes from Ceylon, it being the product of these precocious trees of which but a few are more than four years old. To give some idea of the energy with which this industry is being pursued, it will suffice to say that during this year about 4,000,000 seeds were sold at about a penny each and were all planted, and this figure probably represents only about half of the number planted in Ceylon during the current year. It is calculated that during this year more than 100,000 acres were set aside for the cultivation of rubber in this island and a similar area in the Straits Settlements, which gives a total of 320,000 acres in the two colonies, representing in the proportion of 250 trees to the acre, 80,000,000 actually in cultivation. Thus it is that without counting upon further increase in planting these two British colonies within a few years will be in a position to supply the markets with the best rubber that has ever been known."

According to a report of the same consul a certain amount of rubber has already been landed in England coming from Ceylon in the form of small, transparent, flat cakes of rubber, chemically pure, which brought remunerative prices, the last quotation being $1.66 per pound while the best obtained for Amazonas or Para was only $1.36. These facts make it sufficiently clear that we ought to inquire into the question and provide against the consequences.

The plan of the governor to avoid the results of this coming competition is to establish experiment stations for the improvement of the methods of rubber production in Brazil. In addition to this, however, he advises the development of agriculture along general lines and expects that the efforts of the State to keep colonists upon the soil by aiding them with implements, seeds, machinery, and animals for breeding purposes will be continued.

That the plantation rubber received in England is of such high grade is a source of considerable surprise here. Reports of experts heretofore have been in favor of the wild "Para" variety as better lending itself to modern manufacturing methods. The area under rubber cultivation in Ceylon and the Straits Settlements also is surprising. That eventually there will be some marked change in the course of the rubber trade away from the deadly swamps of the Amazon Valley upon which it now depends is generally recognized in well-informed circles in Brazil.

ASKED TO CONTROL RUBBER.

The Brazilian coffee "valorization" scheme has been followed by the introduction into the Brazilian Congress of a similar project in regard to rubber. The rubber producers make the same claim to consideration that was made by the coffee producers, but whether or not they will meet with like success is not yet possible to say. According to the proposal all rubber which is not to be consumed in the factories in Brazil is to be deposited by the producing States at the docks which lie within the zone of collection, and penalties are provided for cases

of noncompliance. The rubber is to be paid for at the Government bureau at the daily price on presentation. The right of exportation will be reserved to the rubber-producing States, and will be carried out in their behalf by the fiscal delegations. The Government is authorized to take up a home or foreign loan of not more than $50,000,000 with which to look after the rubber.

SAMOA.

EXPERIMENTAL TAPPINGS ON THE ISLAND.

Consul-General George Heimrod sends from Apia a report on the tapping of a grove of rubber trees grown in Samoa by T. Andrew on a plantation some distance from Apia. Mr. Andrew furnishes him the following information:

The variety first tapped was *Hevea brasiliensis*. Three trees were selected, with circumference at three feet from ground of 24½ inches, 23 inches, and 21½ inches, respectively. These trees are 6 years and 3 months old from the seed, grown at an altitude of 1,100 feet; soil friable loam with mixture of clay sufficient to give binding necessary to preserve moisture during prolonged dry weather. The first experimental tapping was on March 10, 1906. Tree No. 1 gave 15.5 grams (gram = 15.432 grains), No. 2 gave 14.2 grams, and No. 3 12 grams; a total of 41.7 grams. On March 18 another tapping resulted in 19.2, 21, and 26 grams; a total of 66.2 grams. A third tapping on April 2 realized 31.4, 27.2, and 38; a total of 96.6 grams. The fourth tapping, on April 10, gave 30.5, 28, and 34.1; a total of 92.6 grams. The grand total was 297.1 grams, equaling 9 ounces dry rubber. Trees Nos. 1 and 2 were \ and V shaped incisions; No. 3 a spiral from base up to about 5 feet.

Three trees of the variety *Castilloa elastica* were tapped lightly; no bark was removed, as in the case of the *Hevea brasiliensis*. The cuts were made with an ordinary pruning knife, with the point ground blunt, so as not to injure the inner bark. The cuts were all single oblique, twelve on each tree. The thirty-six cuts yielded 67 grams dry rubber. The fourth tree was tapped more exhaustively (two tappings); cuts ranging from the base to 5 feet high, twenty-four cuts, each time yielded 61 grams dry rubber. After five months the wounds healed and new bark had grown level with the old.

FOOD AND DRINK.

HIGHER PRICES IN EUROPE.

GREAT BRITAIN.

FURTHER ADVANCES IN MANY ARTICLES IN ENGLAND.

Consul W. C. Hamm, of Hull, writes that reports agree in saying that England is on the eve of a marked increase in the cost of living.

There is a simultaneous shortage in several different kinds of household provisions, and the result is that prices are already on the rise, and by Christmas they will have reached unusual heights. Butter and cheese are two of the chief articles in which there is a shortage, and the reason for the shortage is found in the continued drought of the past few months, the effect being felt not only in England, but in butter-producing countries like France, Canada, and Australia. Apart from this, many farmers are giving up making butter and cheese, finding it more profitable to sell their milk. The result of these things is that there is a scarcity of both butter and cheese. At Christmas butter will cost 4 cents per pound more than at present, and cheese will increase by 2 cents a pound. A leading London firm of provision dealers states that prices are even now well advanced. Here are their list of present (per pound) prices and estimated prices for Christmas:

	Present.	Christmas.
	Cents.	*Cents.*
Best fresh butter	36	40
Best Cheddar cheese	22	24
Best Canadian cheese	16	18

Other articles are following suit. There was a shortage this year of strawberries and yellow plums for jam, and marmalade, for some unexplained reason, is also less in quantity than usual. The catch of sardines was much below the ordinary this year, so that the tinned fish are also more expensive. Then, too, there is a diminution in the supply of best bacon, farmers finding that pig breeding is less profitable than of old. Here is a list of the prospective prices of some of these things at Christmas, as compared with the prices at Christmas of last year:

	1905.	1906.
	Cents.	*Cents.*
Best parts of bacon, per pound	22	24
Half or quarter side, do	17	18
Sardines, per tin	32	36
Strawberry jam, per 8-pound jar	22	28
Yellow-plum jam, do	22	28
Marmalade, do	20	22

These are London prices for the best quality, but corresponding increases will be made in various grades. The failure of the potato crop in the western districts of Ireland will undoubtedly affect the price of that article of food in all parts of the Kingdom. The failure is due to the rainy summer, the season having been unusually wet in the district. Bread is about the only staple article of food that does not promise to be dearer the coming winter in England.

EXPORT FLOUR DELAYED.

FIVE MONTHS IN REACHING LONDON—NEED OF REFORM.

A London flour importer, who addressed the recent Millers' Convention at Milwaukee on the delays in transit in shipments of flour from American mills to Europe, stated that he had compiled data regarding some 450 shipments, which had taken from sixty-five to one hundred and forty-nine days in transit from the date of the bill of lading to the time of arrival at English ports, and he knew of other shipments that had been out one hundred and sixty-five days and had not yet arrived. He said the average time in transit of the 450 shipments of which he had record was about one hundred days.

The Northwestern Miller, in commenting on the subject, says that American flour is placed at a serious disadvantage by this uncertainty in delivery. The importer of American flour becomes of necessity a speculator in shipments which may arrive in fifty or one hundred and fifty days, since his customer is not so anxious to obtain American flour that he will assume this risk, when he can conduct his business on a strictly mercantile basis by obtaining his flour from the home miller. Hence, even with a good crop, American flour has not recovered in the past year the position it formerly held in the British market. The Northwestern Miller says that many shipments of flour have been made in the past year which arrived in English ports within thirty days after leaving the American mill, and that the majority of such shipments arrived in sixty days. It is the uncertainty, due to the large proportion of delayed shipments, that places the European importer under a demoralizing handicap.

The Northwestern Miller further says that the fault lies with the miller, the railroad, and the steamship companies. Flour is about the only important export commodity that is not booked for specific sailing. Grain is shipped from the West on specific sailing orders, and the same is true of provisions, agricultural machinery, and other important commodities. If flour were booked on a specific sailing contract the European importer would know practically the day when his consignment would arrive in port. The average time in transit from the mill to the foreign port would practically be cut in two. But the railroads object to such an arrangement, unless higher freight rates are paid.

MILLING CAPACITY GREATLY INCREASED IN RECENT YEARS.

A correspondent of the Northwestern Miller, writing from London, says:

The increase in the British milling capacity has been so enormous the last two or three years that it now, in itself, is larger than is

required to supply the entire demand for the United Kingdom. The cause of this large increase in capacity was principally owing to the attention given to Mr. Chamberlain's tariff ideas and to the exclusion of American brands during the recent period of high price, which, of course, prohibited a continuance of trade with American mills. These two influences unfortunately coming together made some of the British mills think that they were going to control the trade for good and all, and that trade in American flour was a thing of the past. Accordingly, several of the British millers increased enormously their already large capacity, and many other new milling enterprises were started. There is no question that these millers are now sorry that they branched out to such an extent and some of them find they have beautiful white elephants on their hands. British mills, however, are offering a very satisfactory flour, and American flours must improve in quality, besides being sold at considerably cheaper prices than the home mills' brands, in order to regain their trade.

MARKET FOR BACON.

LARGE QUANTITIES CONSUMED—KIND AND CUT MOST POPULAR.

Special Agent William Whittan, jr., furnishes the following on England's consumption of bacon, and describes the kind of bacon and methods of preparation that are popular:

For years Great Britain has consumed enormous quantities of bacon. It may with truth be called the staple breakfast meat. Although the home production is very large the country imported last year approximately 300,000 tons of bacon, valued at $65,000,000. About one-fourth of this quantity came from Denmark. This latter is excellent meat, and its quality is due to the fact that some years ago the Danish Government purchased large numbers of the best breeds of hogs from England. Canada is also supplying Britain with bacon in steadily increasing volume.

To arrive at what will best suit the British demand a scrutiny of the breeds, weights, and cuts most common in England must be taken. My investigations show that the three principal breeds of hogs in England are the white Yorkshires, the black Berkshires, and the red Tamworths. The most popular weight ranges from 140 to 196 pounds. The best selling "cut" is what is known as the "Wiltshire."

POPULAR "CUTS."

By the largest retailer in Bolton, one of the important cotton manufacturing centers in Lancashire, I was informed that there is an enormous demand for this style of "cut," and that it not only commands a ready sale but also brings the highest prices. The Danish and Canadian products are "cut" in this way, and bring prices, landed in England, within a fraction of those paid for the best English-fed and cured meat. The nice-looking lean-meat selections are the most desirable, and a "side" should weigh, when cured, between 60 and 65 pounds.

My informant said further that no matter how good the quality of the meat might be or how suitable the curing, if presented in the old style of "cuts," it would never even be offered in the best stores, where

obviously the highest prices are obtainable, for the reason that the retail purchaser has been brought to believe that in the "Wiltshire cut" he gets the best article. This has developed into a strong prejudice, and for this reason no fair comparison in values between the usual American "cut" and the British, as well as the Canadian and Danish article imported into England, is possible.

ADVANTAGES OF THE WILTSHIRE CUT—READY SALE FOR GOOD BACON.

The advantages of the "Wiltshire cut" may be briefly summarized as follows: First, it commands the best price and the readiest sale; second, from the curer's or packer's standpoint it is desirable, as it can be sold without dissecting shoulders and middles or "Cumberland cut" and hams. This point was emphasized by the statement that what are known in England as "New York shoulders" are generally a drag in this market.

Another vital matter is the question of curing. Meat prepared for the American market is almost unsaleable here. The English palate demands a bacon which is almost insipid by comparison with the American article. There is no doubt, however, but that our meat is of desirable quality if prepared and put up to meet the requirements of the British consumer.

One thing which must be carefully guarded against is the supplying of meat in a soft or oily condition, as the trade will have none of it. Good firm meat, fairly lean, and not too heavy, of the "Wiltshire cut," will find a ready sale at good prices. To illustrate this I was informed that if the very best brand of bacon produced in England were taken and "cut" in exactly the same manner as most American bacon is now received its selling value would be considerably reduced.

Owing to the known and great reduction in the consumption of canned goods here the demand for bacon has grown enormously, and our packers ought to see to it that they participate in this trade.

FRANCE.

HIGH PRICES OF VEGETABLES, MEATS, AND FISH.

Consul J. C. Covert writes from Lyon that the effects of the three months drought in that part of France is showing itself in many ways not anticipated. He writes:

Of the numerous mills for doubling silk, called "throwing mills," upon the work of which the silk manufacturers of Lyon depend for their supply of silk to be woven into tissues, one-third of them are closed. A trustworthy authority informs me that if one-third of the throwing mills are not actually closed at least one-third of the throwing capacity of the mills is suspended. Some of them are running on half time, some on quarter time, and so on. The effect of this is not yet felt in the silk mills in Lyon, but if the drought continues and many more throwing mills are closed the result will be the shutting down of all the silk-weaving establishments of Lyon for want of material to work on.

The prices of all farm products have advanced materially within the past two weeks. A large dealer in wine tells me that the price of Beaujolais wine has doubled within the last three weeks, and no one can tell where it will stop. The following table, which I have compiled from trustworthy sources, gives the advance in price in a number

of articles of daily consumption. The price is per 100 kilograms, or 220 pounds:

	1905.	1906.
	Cents.	*Cents.*
Beans	25 to 80	40 to 100
Green peas	30 to 50	40 to 60
Onions	8 to 12	18 to 20
Tomatoes	8 to 18	18 to 25
Shelled beans	20 to 40	30 to 60

BAD OUTLOOK FOR THE POOR MAN.

Cabbages bring now from 60 cents to $1.60 per dozen heads, while last year at this time they were sold at from 40 to 80 cents per dozen. Lentils have increased in price in the sum of 15 francs ($2.90) per 120 pounds; split peas $1 per 100 kilograms (220 pounds). Potatoes are nearly double the price of last year. The slight scarcity in apples has been compensated by import from Italy. Potatoes will be imported from Italy and Germany and it is possible there will be a market for potatoes from the United States.

While farmers have been compelled to kill their stock to prevent the animals from dying of thirst, meat has advanced in common with other articles of daily consumption to nearly double the prices of a year ago. The drought is responsible for an increase of $1 per 100 kilograms (220 pounds) of sugar, as it has caused a shortage in the beet crop. The dry spell has induced the people of the country in the neighborhood of rivers to drain them of fish, and as a consequence the price of fresh fish has augmented in a degree that has placed them beyond the reach of the majority of the people. Preserved fish have increased in price from 2½ to 3 cents per pound. The low condition of the navigable streams has made it impossible to receive coal by water, and that necessary commodity has augmented in price from 6 to 10 cents per 100 kilograms. Everything considered, the outlook for the winter is very discouraging, especially for the poor, who have not steady work upon which they can depend. Bread will be dear, and as there is a protective tariff of 7 francs per 100 kilograms (220 pounds) on flour, it is not probable that imports from other countries will materially relieve the wide-prevailing want.

BELGIUM.

PEOPLE OF LIEGE INCREASING USE OF FLESH FOOD.

Consul J. C. McNally states that the consumption of meat in Liege in 1905 shows that with advancing prosperity the people indulged their appetites beyond the usual. He writes:

It is only on rare occasions that the average working man can provide meat for his family, so that the meat-using people may be designated as the better paid and middle classes only. Last year the public abattoir, or slaughterhouse, had the busiest time in its history. The following are the statistics covering that institution for the year, the number of animals slaughtered being 5,700 in excess of the previous year:

Steers, 10,500; cows, 6,500; heifers, 8,000; calves, 4,500; pigs, 39,300; sheep and goats, 34,900. This does not, of course, include

the horses slaughtered for eating purposes, which branch is said to have enjoyed the general prosperity. The public slaughterhouse is a communal institution and is regulated by the city authorities. Much attention is given to the sanitary condition of the institution, as well as to the condition of the animals to be slaughtered, the inspection system being especially severe. The local staff appointed by the city include the manager, who is a qualified veterinary surgeon, a chief and assistant inspector of the same profession, and other nonprofessional officers.

The schedule of prices for slaughtering and appraising the animal is as follows: Steer, cow, or heifer, 50 cents; particularly young heifer, 32 cents; calf, 16 cents; horse, 50 cents; colt under 18 months, 32 cents; pig, full size, 19 cents; sucking pig, 5 cents; sheep, lamb, or goat, 15 cents.

SIBERIA.

MELTED HOG FAT NOW ADMITTED AT VLADIVOSTOK.

Consul Roger S. Greene, of Vladivostok, reports that the Russian regulation prohibiting the importation of hog products into Siberia has now been modified to the extent of admitting so-called "melted hog's fat," i. e., lard. He continues:

To avoid misunderstanding and delay in passing the lard through the custom-house the bills of lading and ship's manifest should contain the word "melted" (Russian: *лепое*) before or after the word "lard." It is desirable also to describe in the same way lard compounds, even though they may contain no hog's fat.

This ruling also makes it possible to ship lard in transit through Vladivostok to Manchuria. There is a good market in this region for lard and lard compounds, though at present a somewhat crude product from China which can be sold cheaper is being imported under the name of "American lard," and the demand for the genuine American article is consequently reduced.

HOLLAND.

DISEASED DUTCH OYSTERS ARE TABOOED IN EUROPE.

Consul-General Soren Listoe writes from Rotterdam that the Dutch oyster, which is of the size of the American "blue point" and considered quite a delicacy in Europe, has this year been found diseased.

Many persons who have partaken of the bivalves have as a consequence suffered severe illness owing to their systems having become poisoned, though as far as known no deaths have as yet resulted. People have, however, naturally abstained from eating Dutch oysters, but an Amsterdam newspaper, the Algemeen Handelsblad now claims that "the cases of illness, which have resulted from the eating of Dutch oysters, have occurred exclusively after the consumption of oysters derived from pits at Bergen op Zoom, and the cause of the disease among the oysters at that place is a sudden contamination of the water in the harbor and in the river Zoom, owing to the fact that two sugar factories have been started at Bergen op Zoom, which discharge their refuse in the harbor. The cause of the disease among the oysters is therefore confined to the locality mentioned and is of only a temporary

nature, so there is no reason why Dutch oysters in general should be shunned."

As a matter of fact Dutch oysters are nevertheless at present tabooed from all menus, and American oyster dealers may probably find a good market in Europe this winter. Aside from this fact, however, it may be of interest to American oyster breeders to know that sugar factories or refineries should not be allowed near oyster beds.

CANNED GOODS EXPORTED.

The Bureau of Statistics furnishes figures showing that in the fisca year ended June 30, 1906, the United States exported canned foods valued at $18,000,000, against $11,000,000 in 1896, an increase of over 60 per cent. The figures for 1906 do not include exports to Alaska, Hawaii, and Porto Rico, which aggregated $1,250,000.

The following table shows the value of the principal articles of canned goods exported from the United States in 1906:

Beef	$6,430,446	Meats, other	$1,593,497
Salmon	3,847,943	Vegetables	658,739
Fruit	2,348,064	Fish, except salmon	187,711
Milk	1,889,690	Caviare	17,829
Pork	1,215,857		

WINE AND BEER.

EXCELLENT CHAMPAGNE VINTAGE.

FRENCH GRAPE CROP GATHERED—TRUST SCHEME FAILS.

Consul J. Martin Miller, in a letter from Rheims, says that, beginning with September 25 and continuing until October 15, about 20,000 people were busy every day and Sunday gathering and pressing champagne grapes in the district between Rheims and Epernay. The consul continues:

The vintage took place in fine weather and the grapes matured satisfactorily. Although the crop is not as large as in some former years, it is of excellent quality. There is a suitable degree of alcohol, and the must (juice) has a plentiful bouquet and finesse, while there is the requisite amount of acidity. These conditions constitute a perfect equilibrium and form a wine that will keep well.

When the grapes are picked all the defective berries are cut from each bunch and thrown into baskets with the refuse grapes, which are sold to the makers of cheap champagne for sale in France and near-by countries with a low tariff. The first-class houses use the juice obtained from the first three pressings of the selected grapes. After the three pressings the grapes are pressed four times more for the tailings, which goes to the makers of cheap champagne, sometimes artificially charged, that sells in France at from 1 to 5 francs (franc=19.3 cents) a bottle. After the last drop of juice has been pressed out of the grapes a cheap brandy is made from the pulp. The cheap grade of champagne is not manufactured at all by the leading exporting houses, so they must sell the last pressings to the smaller houses of the trade. The brandy is made by individuals and small concerns by the use of the most primitive kind of a distilling outfit.

PRICES PAID FOR GRAPES.

The grape presses are kept running day and night and the grapes are taken immediately after being picked to the press before there is any chance for the least decay or fermentation. The presses are very large and hold 4,000 kilos, or more than 2 tons, of grapes at one pressing. Some of the exporters own large vineyards of their own, but none of them probably raise enough grapes to supply their champagne trade. All the leading exporters are large buyers of grapes from the owners of vineyards, large and small. Some champagne makers own no vineyards at all, but buy all their grapes.

The price paid for grapes by the champagne makers is fixed each year at the beginning of the vintage, when it can be determined as to quantity and quality, by a committee of manufacturers and growers who meet at Rheims. The earliest grapes, or first picked, are generally the highest priced. The price this year for the first quality is 1 franc 25 centimes (25 cents) per kilo (2¼ pounds), or 500 francs for 1 cask (200 liters or 211 quarts) of grape juice, or must, 400 kilos of grapes being required to fill 1 cask. This makes the grape juice necessary for the production of 1 quart of champagne cost about 47 cents this year. The cost of manufacturing by the most refined processes, and keeping the wine from three to five years before it is placed on the market, is very expensive.

The highest price paid for champagne grapes in recent years was in 1889, when the price for the first quality ranged from 4 to 4½ francs per kilo, or nearly 40 cents a pound. As it requires 2 kilos, or over 4 pounds of grapes to make one quart of champagne, it will be seen that the juice necessary to make 1 quart cost more than three times as much as it does this year, or about $1.60. The price of grapes varies each year, and depends upon the quantity and quality of the crop.

UNIFORM SALE PRICES THE WORLD OVER.

Notwithstanding the wide difference in the price of grapes in some years over others, the price of champagne remains exactly the same every year. And it is exactly the same as to retail price in all countries, regardless of the rate of tariff. At the leading hotels in Paris, where there is no duty at all, or in London (English duty 15 cents per large bottle), or in St. Petersburg (duty nearly $1), and in the United States (duty 66⅔ cents), the price is about the same year in and year out. The price varies no more in the different countries than at the various grades of hotels and public houses in the same city the world over. This is a feature of the champagne trade, in the face of the fact that the keenest genuine competition exists among the many houses exporting champagne from here to every country of the world.

Within the past three years two prominent promoters from the United States worked for several months among the champagne houses endeavoring to create a trust by organizing the leading houses under one corporation, but to continue making the same grades of wine under the same names. The scheme proposed to do away with all agencies in the United States and in every country, establishing a central agency for the distribution of all the champagne.

Attractive prospectuses, with estimates of the saving in expense and the increased profits under the trust plan, were gotten up, and many conferences were held with the leading manufacturers. Not a single manufacturer, I understand, favored it, but, on the contrary, all opposed

it strongly. The persistent promoters finally acknowledged their failure to establish a champagne trust and gave up further attempts several months ago.

FRENCH BRANDY.

REPORT OF THE SITUATION IN THE COGNAC REGION.

Consul George H. Jackson, writing from La Rochelle, says that the vintage in the cognacs is already well advanced and promises to equal in quantity that of last year. He continues:

The long period of the drought, where not a single drop of rain fell in the vines for more than four months, was favorable to the peculiar vineyards of this region, especially the champagnes. Last year there was too much rain, which occasioned more or less rot, but this year rain fell only a few days before the vintage commenced, and as a consequence otherwise increased the quantity. As to quality, the brandy of this year is expected to be exceptional, as the vines and the fruit are entirely free from the diseases and accidents that so often beset them.

It will be interesting for Americans to have some idea of the large quantities of brandy that has been produced since the reconstitution of the vineyards. The vines are almost without exception grafted on American stems, and the sum of $60,000,000 has been employed in reestablishing the former situation. The official statistics in the year 1904–5 show that in the department of the Charente 18,700,832 gallons of wine were distilled and produced 1,599,434 gallons of alcohol at the 100 per cent. This quantity represents 2,665,715 gallons of Cognac brandy at 60 per cent. In the department of the Charente Inferieure the quantity of wine distilled was 21,086,750 and produced 1,825,214 gallons of brandy at 100 per cent, which equals 3,042,015 gallons of brandy at 60 per cent. The total production then of the Charentes for the period above named is 5,707,730 gallons of Cognac brandy.

From figures recently published by the ministry of agriculture during the last twelve years the total amount of wine produced in the Cognac region amounts to 397,512,065 gallons, which equals 795,024,130 gallons of Cognac brandy at 50 per cent. It will be understood by these figures that the day is not far distant when the quantities of old brandy in stock shall have increased to such proportions that any recourse to falsification of brandies will not result from any lack of pure brandy from wine, but from a desire to satisfy a certain trade which demands brandy so ridiculously cheap that it can not expect to purchase pure liquor.

GOOD VINTAGE YEAR.

EXCELLENT VINTAGE REPORTED FROM VARIOUS COUNTRIES.

In most wine-producing countries the yield promises to be well up to the normal, and in respect to certain varieties of wine will probably be above the average. The champagne vintage in France is described by a London Financial Times correspondent as of "superlative" quality, and shippers have had to pay about double the prices of 1905. The claret vintage exhibits some remarkable divergencies

both in quantity and quality in the different vineyards. In Germany the hock and moselle vintages will be limited in amount, but of excellent quality, and in Spain the sherry vintage is abundant and of a choice character. Portugal promises an exceptionally fine quality of port, and in Madeira there is every prospect of a yield of the best type. The area under vines in Australia continues to increase, and a large proportion of the yield is now consumed in the United Kingdom. A decline in the consumption of wine in that country in recent years is noted—from 18,000,000 gallons three decades ago to 12,000,000 gallons at the present time—notwithstanding the increase of population.

MAKING WINE FROM FIGS.

Consul Maxwell Blake, of Funchal, advises that some interest has been aroused in the island of Madeira as the result of experiments conducted by an Italian chemist, Professor Pagisci, who declares that the juice of the fig under proper treatment can be converted into a wine of excellent taste.

The professor states that its flavor is agreeable, that it is very rich in phosphate matter and almost wholly destitute of tannic acid, qualities that render it especially nourishing to invalids and children. The pulp is said also to create a new food for milch cows and fowls. The fresh fig contains only about 25 per cent of sugar, but after it has been dried and prepared for the making of wine it yields 80 per cent sugar.

MARKETS FOR BEER.

FRANCE AFFORDS GOOD SALES OPPORTUNITY.

Concerning the use of beers in France, particularly for the west and southwest, Consul G. H. Jackson, of La Rochelle, writes that it would seem that the possibilities for introducing good beer are unlimited.

This is due to the fact that French people are fond of beers. The French product is generally poor in quality, and outside of the few large cities in France there is no German beer sold, and even in cities of 25,000 to 50,000 there may be only one "café" where German beer is sold. It would hardly be advisable to secure a large number of local agents. It would be preferable to have central agents at Havre, Bordeaux, and Marseille, who would send out travelers in their respective districts. By this means a remunerative trade could be developed.

OPPORTUNITY IN SAMOA.

The acting British vice-consul at Apia, Samoa, states that there is an opening in Samoa for light beer, and that there is a wide field for its sale. Commercial travelers in adjacent island groups, namely, Tonga, Fiji, New Caledonia, New Hebrides, etc., say that, in their opinion, commercial travelers offering goods at low prices might secure many orders in all the groups mentioned. The traveler should apply at the consulate for information, so as not to sell to insolvents. He remarks that no documents are given in Samoa by any traders; there is no bank in Samoa, and firms pay cash or postal order, as arranged, or make arrangements for a renewed term, to bear interest at 8 per cent per annum. Neither beer nor anything else is shipped direct from Europe to Samoa. All comes by Sydney or Oakland.

SOIL CROPS.

SUGAR PRODUCTION.

ANNUAL YIELD FROM BEETS IN EUROPE.

DECREASED PRODUCTION PROBABLE IN NORTHERN REGIONS.

The following approximate estimate of this year's beet-sugar crop with a comparison of last year, just published by a Belgian statistician, is supplied by Consul-General H. W. Diederich, of Antwerp:

Countries.	Acreage		Production (metric tons).	
	1905.	1906.	1905-6.	1906-7.
France	649,884	469,498	1,090,000	705,000
Belgium	170,502	148,262	329,000	270,000
Holland	118,610	108,725	207,000	185,000
Germany	1,156,448	1,097,143	2,415,000	2,150,000
Austria-Hungary	916,757	845,097	1,510,000	1,340,000
Russia	1,299,769	1,398,610	988,000	1,355,000
Sweden	66,718	74,131	121,000	135,000
Denmark	37,065	37,065	67,000	70,000
Spain	79,073	81,544	90,000	98,000
Italy	91,428	93,899	100,000	125,000
Greece, Switzerland, etc	37,065	34,594	38,000	40,000
All Europe	4,623,319	4,388,568	6,955,000	6,473,000

This estimate is based on the condition of the beet-sugar fields all over Europe, as ascertained during the first week of October, and the weather of November will determine whether the figures of the net results will have to be varied one way or the other. According to the above statistics there was a decrease in the acreage sown to sugar-beet seed in all Europe amounting to 5.08 per cent, and 6.93 per cent less sugar was produced when compared with the crop of last year.

NEW CANE PEST.

BECOMES ANNOYING ONLY IN WET SEASONS LIKE PRESENT.

Consul W. W. Handley, of Trinidad, reports that during the past few months sugar canes in that West India island have been attacked by a small insect of the group known as "spittle insects" or "frog hoppers."

The name "spittle insect" is given on account of the peculiarity of the immature insect in covering itself in a mass of white froth which is voided from the tips of the abdomen, and which forms a complete hiding place or covering for the insect within. The name "frog hoppers" is probably derived from the name of frog spittle, formerly given to the frothy mass, and from the leaping habit of the adult. The frog hoppers belong to the family Cercopidæ, of the order Hemiptera, and are therefore related to the principal insect pests with sucking mouth parts, such as scale insects, plant lice, plant bugs, cotton stainers, etc.

Specimens of infested cane stumps and of the adult insect have been sent to the head office of the imperial department of agriculture, and the following account is based on examination of these specimens:

The adult insect is about five-sixteenths of an inch in length and about half as wide. The head and thorax are dark greenish. The wing covers light brown, with two narrow whitish bands running across them. The head is stout and broad, the eyes prominent, and there are two small simple eyes on the upper surface of the head between the large compound eyes. The antennæ are short and hair-like, except the base, which is much thickened. The legs are dark brown and slender, the wing covers are somewhat thickened, while the underwings are pale, tinged with smoky brown, and with violaceous reflections. The immature specimens so far examined are all in the last larval stage of development. The bodies are whitish, tinged with pink or red, the head and thorax being darker. The developing wings are seen as dark, elongated pads, lying on the basal part of the abdomen.

The adults have not been observed in the act of feeding. The immature insects seem always to place themselves on young, tender roots, and it is probable that they are unable to penetrate the hard rind of the cane with their beaks. They have been found feeding at a distance of 4 inches below the surface of the soil. The chief of the Trinidad Botanical Gardens states that this insect appeared on the island a few years ago, during such a season of constant wet weather as the present has been, and the fact that it has remained comparatively unknown since that time would indicate that it becomes a pest only in seasons unfavorable to the cane.

WALNUT INDUSTRY.

METHODS OF CULTURE IN FRANCE.

SUGGESTED FOR SOUTHERN STATES—LARGE SHIPMENTS FROM FRANCE.

Consul H. S. Brunot, in a report from St. Etienne, says that the French exportation of the popular fruit Juglans regia, commonly known as the English walnut, begins at this season, and America is the largest market for the dried, as England is for the fresh, fruit, the French home market excepted. He continues:

The annual sales to America through this consulate amount to over $30,000, but the great bulk of the French exports are billed from Grenoble in the Isère and the southern seaports. All the Departments of south-central and southeastern France grow these walnuts as a valued crop, the trees doing best at an altitude from 600 to 1,900 feet. Late spring frost is the most general cause of damage to the crop, which nevertheless shows remarkable regularity in quantity from year to year.

The American States south of the Mason and Dixon line would seem to be a suitable climate for white walnut orchards, although the humid regions of the Atlantic coast and the Gulf littoral would not be favorable. The tree is susceptible, especially while young, to either extreme heat or cold. The trees are subject to fungous disease, which is held

in check by spraying and washing the trunk at the ground level with various remedial solutions.

As many, and often inferior, varieties of nuts develop from seedling-grown trees, it is the practice to graft on the young trees from desirable ones, this being done by the several well-known methods. The best age for grafting is when the tree is 2½ or 3 inches in trunk diameter. As only the outer or exposed limbs produce perfect nuts, pruning is necessary to prevent the center from choking with useless growth. In planting the most important precaution is to give the trees plenty of room and air, devoting much more space than is required by other trees. Fifteen yards is not too much, and besides generous spacing permits of the land being used for pasturage or for certain other crops.

PROPER SOIL—VALUE OF CROPS AND ORCHARDS.

For the best results the ground about the roots should be dug and enriched with manures and phosphates every year or two. The most desirable land is dry and well drained, and in no case should nut trees be planted in swampy, sandy, or clayey soil. There is no objection, however, to stony ground if rich in vegetable matter. The trees begin to bear when about 8 feet high and are at their best when 15 or 20 years old.

A bearing orchard is worth from $400 to $500 an acre, and may yield a revenue of $75 to $100 a year per acre. These figures are, of course, averages, as many well-planted orchards have a far greater value on account of their producing capacity, their location, and the superior quality of the land for other purposes.

The nuts ripen from the middle of September until the end of October, depending on local conditions, and a single tree may yield from three to nine bushels. When gathering the nuts care must be taken not to thrash and injure the delicate extremities of the branches, because already the germs of the next year's crop are developing, and much harm would result.

MARKETING METHODS—WOOD AND OIL VALUABLE.

For the American confectionery trade the walnuts are usually shelled, the kernels being carefully extracted in halves, commercially known as "walnut halves." Only the more attractive sorts, such as Marbots and Cornes, are shipped in their shells, to figure in the dessert basket with other after-dinner condiments. The market prices for whole nuts range from 7 cents a pound for new crop to 9 cents for old crop, delivered on board at Marseille or Bordeaux.

If the palm is the benificent tree of the Tropics, the white walnut emulates its usefulness in the Temperate Zone of Europe. While it is classed as a hard wood, it is not extremely hard, is easily worked and fairly durable. It is commonly employed for furniture, turning, wood carving, sculpture, carriage building, gun stocks, and in many other industries not the least of which in Europe is the making of wooden shoes. The wood is not strong enough for good tool handles, though it is extensively so used for lack of a better material.

From the dry nuts a large percentage of excellent table oil is cold pressed, which for many culinary purposes the French prefer to olive oil, particularly since the latter is more likely than not adulterated.

Another lower grade of oil is obtained after the cold pressing process

by heating and re-pressing. The best of this is also used as a cheap culinary oil, but most largely in paints and other commercial compounds.

MANY MINOR PRODUCTS.

The outer hulls or shucks are the source of a rich brown dye and also furnish gallic acid. "Eau de noix" is a bitters supposed to have tonic and digestive qualities. The leaves, even, are used as a substitute for camphor balls, and the farmers spray their live stock with a decoction made from nut-tree leaves to drive off the flies and stinging insects.

The oil cake, after the extraction of the oil, has still a use as a fattening food for stock, the pruned branches and dead limbs furnish fire wood, the ashes from which being rich in potash contribute to the supply of home-made soap.

There remains the frolic of gathering and the pleasure of eating the nuts, which have the flavor of American hickory nuts, but are milder, and moreover they are much more easily cracked. Thus is the white walnut, long ago introduced from Persia, at once the most useful, profitable, and altogether the most agreeable member of the European nutrimental tree family.

GRENOBLE CROP INJURED.

DROUGHT CURTAILS YIELD AND SIZE OF THE KERNELS.

Consul C. P. H. Nason, of Grenoble, makes the following report on the matured crop of walnuts in that consular district of France:

The crop of "English" walnuts which in midsummer promised to be unusually large in quantity and fine in quality has been seriously affected by a prolonged season of drought and heat. No rain of any consequence fell for three months—from early July to early October. In consequence the Mayettes (exported mostly in the shell and for table use), of which the yield is usually fully 50,000 bales of 100 kilos (kilo=2⅕ pounds), are so affected that only about 35,000 to 40,000 bales may be available for exportation. The effect of the drought and heat has been to dry and shrivel the kernels to an extent of, say, 20 per cent of the crop.

The exterior shell of the nuts is for the most part natural in appearance, though lacking somewhat in freshness of color, but in many cases on being opened the tissue enveloping the kernel of the nuts, on the side exposed to the sun, is found to be blackened and a part of the kernel itself slightly less developed. The nuts adhere more tenaciously to the trees, with the result that long poles must be used in lieu of the ordinary shaking to dislodge and bring them to the ground. The estimate for Chabert halves, or kernels, available for exportation, is 40,000 cases of 25 kilos each.

The first prices being paid the farmer on the ground are, for Mayettes, $12.55 per bale of 100 kilos. This would mean, including cost of bags, hauling, interior freight, ocean freight, insurance, etc., $16.02 put down in New York.

Mayettes halves, or cracked Mayettes, are being rated here at $61.76 per case for early shipments and $57.90 per case after November. The first prices being made in the field for Chabert halves are, for the last of October, $44.39 per case of 25 kilos; delivered New York, $47.48. After November, $41.50.

At this writing only one or two shipments have been made. There is often undue haste in making early shipments before the nuts are properly prepared. But this year some buyers, who are on the ground, are resolved not to force shipments before being assured that the nuts are sufficiently dried and will therefore reach their destination in good condition.

FRUITS.

EXPORT OF APPLES.

MARKET IN CHINA FOR PACIFIC COAST FRUIT.

In response to a letter from an Oregon apple grower Consul-General Amos P. Wilder writes from Hongkong that the question of shipping apples to China is almost wholly one of cold storage. He says:

The trans-Pacific steamers serve most excellent apples on the table, showing the chill as they are brought on. A Hongkong firm handled some Canadian apples last year with satisfaction, and, apart from the "European" population, the Chinese themselves might soon become extensive apple eaters. The manager of this firm tells me that if the apples come right and sell well that they will give an order, as they are looking for an American apple shipper; but, as I say, the trouble is to get the ship's officers to carry the apples in their cold-storage room.

There are no Chinese apples beyond a small crab. The Chinese are eager fruit eaters, and of course their markets carry some of the finest fruits in the world, including the mango, lichee, and mangosteen. In addition there are many well-to-do Europeans (foreigners) who would pay well for a good eating apple. Apples are generally shipped in cases of 100 each, but no doubt the barrel, with which Americans are familiar, will do as well. Much stress is laid among the Chinese on the "chop." If they once become wedded to apples bearing a certain name or a certain district it will be difficult to substitute others. An importing firm with branches in a number of ports and the Hongkong firm alluded to would distribute to the Chinese retailers if the American apple supply proves attractive. [The addresses of these two firms will be furnished by the Bureau of Manufactures.]

SHIPMENTS TO LIVERPOOL.

Recent advices from Liverpool state that in the week ending October 13, 25,000 barrels of apples were landed at that port from North America. In the busy season consignments range from 60,000 to 100,000 barrels a week, and such large shipments are expected to arrive in November. One of the chief authorities of that port on the apple trade states that they have received information there that the apple crop in Canada is only a moderate one, while the crops in New England, Nova Scotia, and California are on about an average, and in the district along the Hudson River the crop will be practically nil. But the crops in the Western States are very large. The Canadian government has taken steps to improve the grading and packing of Canadian apples, the barrels being examined by inspectors before shipment, and consequently the fruit is arriving much better graded

and packed than was previously the case. It is hoped that Americans will pursue a similar course, and thus strengthen themselves in the British market.

MARKET FOR HAWAIIAN FRUITS.

The Hawaiian agricultural experiment station at Honolulu, through one of its officers, has conducted an experiment of shipping Hawaiian fruits in cold storage to San Francisco and Vancouver. Several tons were shipped to San Francisco in cold storage and were then shipped northward to Portland by railroad, where it was found that more than 95 per cent of these delicate tropical productions, hitherto considered too tender for such a journey, had come through uninjured. The results of the experiment are considered of great importance as opening a new market for the most delicate tropical fruits.

APPLE CROP OF UNITED STATES.

According to the American Agriculturist's final report of the apple crop of the United States, the total is 36,120,000 barrels, against 24,000,000 barrels in 1905 and rather more than 40,000,000 barrels in each of the three preceding years. The figures arrived at are the crystallization of returns from correspondents in every apple-producing section east of the Rocky Mountains. While the crop is thus by no means a bumper one, it is very much larger than that of 1905, and a good many apples are available for winter storage.

MEXICAN WHEAT RAISING.

MODERN SYSTEM IN COAHUILA BRINGS LARGE CROP THIS YEAR.

Consul Victor L. Duhaime, of Saltillo, states that Coahuila holds the third place among the States producing the largest amount of wheat in Mexico. He writes:

In this consular district alone the crop for this year is estimated to be about 1,000,000 bushels. The yield generally averages from 10 to 15 bushels to the acre. Winter red wheat is sown in October and the crop gathered the following May or June. The quality compares favorably with United States wheat. The price ranges from $2.50 to $3 per bushel Mexican currency ($1.25 to $1.50 United States currency). About one-third of this crop is grown by irrigation. The wages paid to workmen for harvesting ranges from 75 cents to $1 a day Mexican currency (37½ to 50 cents United States currency).

This branch of agriculture is yet entirely in the hands of Mexican ranchmen. Owing to the introduction of modern agricultural implements the area is being increased each year. The large steam plows, cultivators, thrashers, and engines, and almost every kind of improved farming machinery now aid in the preparation of a greater amount of virgin soil, not undertaken before owing to the crude facilities. This improved system of economic cultivation by labor-saving machinery has proved to be so profitable and attractive that landowners are now directing their attention to this branch of agriculture with much more energy and activity. Consequently the value of agricultural land is advancing appreciably and the farming sections are becoming more thickly settled and prosperous. Traveling modern steam thrashing machines are in general use.

THRIVING FLOUR-MILLING INDUSTRY.

In this vicinity there are 6 modern rolling mills running by steam and 9 stone mills operated by water power. The flour they produce is of an excellent quality and finds a ready sale in all parts of the Republic, so much so that a large amount of wheat is imported here from the United States, keeping these mills in constant operation day and night to supply the demand for the fine grade of flour which this locality has acquired a reputation for. It is shipped in burlap sacks, 2 bags containing about 200 pounds or 1 barrel of flour, the demand usually exceeding the supply.

Wheat straw furnishes the principal food for the animals, there being no hay raised here. Owing to some peculiarity of the soil it contains sufficient nutritive element to replace hay in feeding stock, on which they thrive and keep in good healthy condition. The price of wheat straw ranges from $10 to $20 Mexican currency ($5 to $10 United States currency) per ton, owing to its abundance and proximity to market.

The duty on imported wheat was removed entirely during the first six months of this year, and during this period the importation was much larger than any previous year. The importation of American wheat into Mexico during the last twelve months amounted to $2,000,000 gold, demonstrating that this is the nearest available market for American wheat. The supply here is never equal to the demand, and this will prove a profitable field for American wheat exporters. The railroads entering Mexico are all of the standard gauge and are fully equipped for the handling and prompt delivery without change to points of delivery.

SPANISH OLIVE YIELD.

ESTIMATES INDICATE A YIELD OF TWO-THIRDS OF AVERAGE.

Having been requested to forecast the quantity and quality of the coming olive crop in Spain, Consul-General B. H. Ridgely, of Barcelona, under date of October 27, reports that, according to the best information he can secure on the subject, the crop will be considerably below the average, which accounts for the fact that prices are 20 per cent higher than in the month of June of the present year.

As to quality, the present indications are good, the fruit is generally in a healthy state, and unless it matures badly the crop though relatively small will be of excellent quality. In connection with this subject it may be interesting to know that the exportation of Spanish olives amounted to 7,644 tons in 1905, as against 7,245 tons in 1904 and 7,592 tons in 1903.

In one report received at the Barcelona consulate on the subject of the coming crop the following detailed forecasts are made: In Andalusia, one-third of the usual crop, of good quality; Aragon, one-fourth of the usual crop, and of fine quality; Urgel, full crop, and of good quality; Tortosa, one-fourth of the usual crop, of good quality; Ampurdan, one-half crop, and of inferior quality; Mallorca, one-third of the usual crop, and of average quality. From this fore-

cast it would appear that only about one-third of the usual marketable crop is to be counted upon. The majority of the forecasts, however, indicate a two-thirds crop.

OLD STOCK BECOMING EXHAUSTED—RISING PRICES.

Consul L. J. Rosenberg supplies late information from a Spanish newspaper concerning the olive crop and olive oil, in the following letter from Seville:

The change of weather in these last days, although very good for the trees, may perhaps delay the harvesting of the olive crop. In view of the situation of our oil market, this circumstance can not but influence the prices of oil, the stock of which is running short. Orders from outside consumers are each day smaller, as, until the new oils come in, they order only what they strictly require. The same applies to all the cities and towns of Andalusia with respect to the oil needed for consumption.

But the fact is that day by day it is becoming more difficult to purchase, and prices are continually rising, having reached $2.56 the arroba (Spanish arroba = 25.36 pounds) to meet the momentary requirements of the market. Although the harvest is very close at hand, the scarcity may be sufficiently great on account of the pressing daily requirements to show prices long unknown. The news received from foreign countries speaks generally of good crops, above all in Italy and Argehia. News from Andalusia is very varied and contradictory, for which reason it would be premature to give an opinion of a general character.

The total entries during the last ten days of September amounted to about 20,500 arrobas, and the exportation by the river about 19,600. The prices, which were about $2.30 to $2.35 at the beginning of the last period of ten days, closed at the end of September at $2.56 and $2.60, with a tendency to rise still higher.

SICILY ALMOND HARVEST.

MARKET CONDITIONS AT CATANIA AND QUANTITIES EXPORTED.

Vice-Consul Jacob Ritter, of Catania, writes on October 25 that the Sicily almond harvest was accomplished at the usual time and was favored by dry weather.

The quality of the crop was generally good; only in a few places the development of the kernels had caused injury. The receipts of the new crop at Catania began at the end of August and continued regularly until the middle of October, when they fell off owing to a sudden decline of prices. It is estimated that the arrivals from inland parts of the Catania consular district to seaports during September and October amounted to about 25,000 bags of 100 kilos each (kilo = 2¼ pounds), and about 15,000 bags may be considered to be still in hands of inland producers and dealers. Consequently the crop would fall short of the estimates made in the spring. The stocks in Catania are not large. During the summer months the prices remained high, but were driven up still more during September by speculators. Only

lately have they declined, prices being per 100 kilos (220.4 pounds) f. o. b. Catania as follows:

	Price on October 25.	Highest point in September.		Price on October 25.	Highest point in September.
Palma-Girgenti	$42.27	$45.64	Catania, selected	$43.33	$47.28
Palma, genuine	43.04	46.32	Avola, selected	50.85	51.92
Adernò	42.94	46.90	Avola, current	45.26	46.82

Palma-Girgenti for November–February delivery in monthly sales, on October 25, was quoted at $43.14. The freight rate to New York is $4.86 per ton. The almond shipments from Catania, from January 1 to October 1 this year, have amounted to 28,484 bags of 100 kilos each. The shipments for the entire year 1905 were 46,248 bags, and for 1904 the exports were 30,111 bags.

The shipments to America were for January 1 to October 20, 1906, 6,640 bags, and for the twelve months of 1905, 6,151 bags. It is probable that other shipments will be made to America.

GREEK CURRANT EXPORTS.

UNITED STATES TAKES MORE—INCREASED USE FOR ALCOHOL.

Minister John B. Jackson reports from Athens that although the greater part of the annual currant crop of Greece is exported before the end of the calendar year, the so-called "campaign" begins and ends on August 10.

The official figures for the "campaign" of 1905 have just been published. The total quantity exported was more than 238,000,000 Venetian pounds, of which more than half was sent to England, while about one-third of the remainder went to America. Altogether the quantity exported was about 14,000,000 pounds less than in 1904. Nearly 86,000,000 pounds were retained in Greece, in accordance with the provisions of the various currant laws, and nearly all of this will be used to produce alcohol. The recently formed company has done a great deal of advertising, and has opened show rooms for the exposition of lamps, stoves, etc., in which currant alcohol and spirits are used for cooking, lighting, and heating purposes. In consequence of the increased use of this currant product the consumption of petroleum and the Government revenue therefrom has diminished considerably, and it is probable that the question of additional taxation, possibly of the currant product itself, will be considered when the Chamber of Deputies meets.

The export of currants from Greece, in Venetian pounds, to various countries for "campaign" years were as follows:

Country.	1904.	1905.	Country.	1904.	1905.
America	32,781,241	34,065,385	Roumania	12,881	15,691
England	124,591,183	128,618,427	Turkey	11,257	4,258
Holland	39,098,258	29,115,159	Egypt	21,702	21,057
Germany	35,911,665	27,750,845	India	82,895	83,631
Austria	8,796,379	6,958,774	Belgium	267,657	311,071
Australia	8,246,676	8,786,879	Brazil	.....	1,296
France	1,741,876	2,210,148	China	.....	808
Italy	238,819	249,060			
Africa	196,335	158,606	Total	253,009,417	238,916,706
Russia	35,598	100,881			

The figures are not strictly accurate, as fractions were probably omitted when the table was printed.

GOOD CURRANT SALES—COTTON, FIGS, AND WHEAT.

Consul George Horton supplies the following commercial items from Athens:

A recent telegram from London announces to the Currant Company that the consumption of Greek currants in England during the month of September, 1906, has been nearly double that for the same month last year. As a result of the good news the council of the company has voted 500,000 francs gold, in addition to money already appropriated, for advertising the currants in the principal British newspapers. Negotiations are on foot also between the company and an American advertising agent for advertising Greek currants in the newspapers of the principal cities of the United States.

The cotton crop of Livadia is estimated at 4,000,000 okes, for which the planters hope to realize 1.50 drachmas the oke (1 oke = 2.82 pounds; $1 = 5.50 drachmas).

As the price of hard wheat from Russia is higher than usual this year, the mills of Piræus have placed in New York a preliminary order for American hard wheat of macaroni grade of 5,500 tons, at a price of 18.25 francs the 100 kilos c. i. f. Piræus, delivery in December.

The crop of Calamata figs is reported at 10,000,000 okes, selling at drachmas 0.40 the oke in sacks and 0.44 in boxes and barrels f. o. b. Considerable shipments are being made to America.

PEANUT OIL YIELD.

SENEGAL VARIETY PRODUCES THE HEAVIEST PERCENTAGE.

Replying to American inquiries in regard to the commercial practice in Marseille, Consul-General Robert P. Skinner states that no special claims are made by buyers, nor is any guaranty given by importers or sellers as to the yield of oil of the various grades of peanuts sold in that market.

From long experience it is known that Senegal peanuts in the shell yield from 32 to 33 per cent of oil, taken on the gross receipt, including the shell. These nuts comprise the Ruffisque, Cayor, and Sine qualities. Gambia peanuts in the shell yield from 31½ to 32 per cent of oil. The Senegal nuts yield the better qualities of oil, the value of the same being about 5 francs (96 cents) per 100 kilos (220.4 pounds) more than that of the Gambia nuts. The oil of the Senegal nuts brings from 50 centimes (9.6 cents) to 1 franc (19.3 cents) per 100 kilos (220.4 pounds) more than Gambia nuts. Both grades of nuts yield from 21 to 22 per cent of oil on the first pressing and from 10 to 11 per cent on the second pressing. Oils of the first or cold pressing are naturally of the high grades, and the second or warm pressings supply secondary qualities.

CINCHONA CULTURE.

INFORMATION FOR STARTING QUININE INDUSTRY IN AMERICA.

Referring to his report on cinchona culture in India, Consul-General W. H. Michael sends additional information from the American consular agent at Madras:

The director of the Government cinchona plantation in the Madras Presidency informed him "that he has no doubt that cinchona trees might be cultivated on the sides of mountains in the Southern States of America where there is no frost, but as a commercial undertaking the first requisite is cheap labor." Cinchona grown on the Nilgiri range of hills, in the Madras Presidency, is subject to a mean temperature of about 60° F.; but from December to February frosts are prevalent, and the temperature at night falls to about 25° F. The day temperature seldom exceed 75° F. or falls below 55°.

The director refers interested persons to the following books on the cultivation of cinchona: (1) The Cinchona Planter's Manual, by J. Cowen, Colombo Observer Press (Ceylon); (2) The Cinchona Barks, by F. McKiger, J. A. Churchill, London; (3) Handbook of Cinchona Culture, by Van Gorkom-Trabner & Co.; (4) De Kina Cultuur in Azie, by J. B. Moens de Bussy, Amsterdam; (5) Peruvian Bark, by Clements Markham, John Murray, London. The director suggests that anyone desiring to study the chemistry of the cinchona alkaloids may find the work entitled "Les Alcaloids des Quinquinas," by E. Leger, published in Paris, of much interest and value.

AMERICAN TEA SUCCESS.

SOUTH CAROLINA METHODS RECOMMENDED IN INDIA.

Consul-General William H. Michael, of Calcutta, reports that the success of the Pinehurst tea plantation near Summerville, S. C., in drying tea by proper exposure to the sun instead of by the mechanical methods, and thereby preserving the natural flavor of the plant, attracted the attention of tea growers in Ceylon, and has now aroused interest among the tea producers of India. He writes:

Although at the very threshold of tea husbandry, the United States is really instructing the oldest tea-producing districts in the best methods of curing that commodity. China has known the "trick" for a long time and has been able to furnish a tea of superior flavor by practicing it, but for some reason her example was not followed in India, if, indeed, it was known here, and it remained for the West to furnish the East with this practical and useful knowledge.

In referring to this matter a recent report says: "Rapid and overhasty firing of teas at the Ceylon gardens, which are then sent to the market at Colombo without a final firing, is responsible for their speedy deterioration, which becomes a tea mass that fetches bottom prices or none at all." The report recommends the adoption of sun drying when it can be resorted to as a means of escape from low prices. It is suggested that drying under glass when weather conditions make it impracticable to expose the tea to the direct sun's rays would be more

profitable, though much slower in curing the leaves, than by the present method of firing. The success of American-grown tea ought to encourage extensive operations on that line in the Southern States, following the example of Pinehurst in South Carolina.

JUTE CROP.

ESTIMATED INCREASE IN INDIA'S PRODUCTION.

Consul-General Michael, writing on the jute crop of India, says:

American buyers of jute will be interested in the final jute forecast for 1906 made by the Government of India. It covers Bengal, eastern Bengal, and Assam, where most of India's jute is grown. The estimate is 8,736,220 bales from 3,336,100 acres, against 8,088,930 bales in 1905. The other areas producing jute, Cooch Bahar, Nepal, upper India, and stations outside of Bengal, have been estimated upon on the basis of the production of last year at 147,628 bales. The director of agriculture, however, says that he believes these latter areas will produce a small increase on last year's output. He also says that a small area of jute has been cultivated in north Bahar. The grand total of bales for 1906 is thus shown to be 8,883,868.

It is understood here by the experts that the estimates of the agricultural department are very conservative, and that the product for 1906 will be considerably larger than that stated above. These experts quietly state that they believe the yield for this year will not fall far short of 900,000 bales in excess of the output of 1905. The flood in the jute-growing districts of eastern Bengal and Assam, which destroyed a good deal of the crop in that jute area, injects an element of uncertainty in the calculation of even the experts, but they believe there will be a largely increased output, and but for the high waters referred to there would be an unprecedented crop. The reports show that there are at least 200,000 acres more of jute sown this year than last, and it is claimed that this fact alone justifies the conclusion that the yield of 1906 will be largely in excess of that of 1905.

There will be a prompt demand for all that will be raised, and at good prices, unless all signs fail, and this, it is thought, will stimulate the planters to increase the acreage planted to jute all out of proportion to the demand, and thus bring down prices which ruled at record-making points.

ACREAGE AND YIELD.

The following table shows the number of acres in India under certain crops and the yield for the year 1905–6:

Crop.	Average acreage.	Yield.
		Tons.
Rice	51,080,500	22,298,050
Wheat	26,226,200	8,560,340
Sugar cane	2,110,800	1,725,300
Linseed, etc.	3,267,400	353,400
Rape seed, etc	6,011,700	959,300
Sesamum, etc.	4,645,600	396,100
Groundnut	488,900	213,900
Cotton ..... bales.	20,401,000	4,237,000
Jute ..... do.	3,181,600	8,384,000
Indigo ..... cwt.	380,700	44,700

Of rice, only 449,825 tons, or about 2 per cent, was exported, and of wheat, only 172,533 tons, or a little under 2 per cent.

QUANTITIES REQUIRED BY VARIOUS COUNTRIES.

Mr. Michael also furnishes the following table, giving an estimate of the probable number of bales and consumption of jute for 1906–7, which will interest manufacturers of jute fabrics in the United States:

Countries.	Consumption.	Countries.	Consumption.
Europe:	*Bales.*	Europe—Continued.	*Bales.*
Scotland	1,250,000	Holland	25,000
England	20,000	Spain	90,000
Ireland	25,000	Italy	160,000
France	475,000	America	600,000
Belgium	120,000	India:	
Germany	750,000	Mills	3,900,000
Austria-Hungary	262,000	Local	500,000
Norway and Sweden	62,500		
Russia	180,000	Total	8,419,500

The annexed table shows the consumption of jute, rejections, and cuttings for the years indicated:

	1894.	1904.	1906.
	Bales.	*Bales.*	*Bales.*
United Kingdom	1,200,000	1,200,000	1,295,000
Europe (Continent)	1,100,000	1,800,000	2,124,500
America	500,000	500,000	600,000
Indian mills	1,500,000	2,900,000	3,900,000
Local Indian consumption	500,000	500,000	500,000
Total consumption	4,800,000	6,900,000	8,419,500

FRENCH FARMING REVERSE.

DROUGHT AND FOREST FIRES—GRAPE SHORTAGE AND SPECULATION.

Consul J. C. Covert, reporting from Lyon, says that a disastrous drought has prevailed in parts of France during the last three months, causing unprecedented distress among farmers. He writes:

In many places cattle and swine have been killed to prevent them from dying of thirst, and at present the ground is so dry that it can not be plowed. Fire in woods and fields has been more common than at any time during the memory of the living. The yield of wine will be smaller than for many years, but this will be largely compensated by a marked improvement in quality. From all I can learn I think there can be no doubt that the quality of the wine of 1906 will be superior to any yield, even that of the famous vintage of 1870. In fact, large quantities have been sold even before the grapes were gathered at prices ranging at from 25 to 50 per cent higher than the prevailing figures of the last two decades.

The weather has been very warm and the hot sun has ripened the grapes, giving them several degrees of alcohol in excess of former years. Vineyards which yielded wine of 7° in ordinary years this year produce a wine of 12° and 14°, but the quantity in many cases is so small

that the farmer will be subjected to great loss. Old wine dealers say that the great brands of Bordeaux and Burgundy will be unsurpassed. Dealers from all the great nations of Europe have had their agents there for the last month buying up the entire crop of several of the famous vineyards. As it was known the yield would be small and the quality superior, much wine has been bought on speculation and will be held several years before it reaches the consumer. The weather has been favorable to grape gathering, and the grapes are, generally, picked and in the great vats ready to be pressed.

STOCK FEEDING SUGGESTIONS.

The question that at present troubles the farmers is how they can feed their stock during the coming winter. The September number of the Agricultural Bulletin deals with this subject in a long article, from which I translate and abridge:.

The farm animals must be divided into two classes, those which are indispensable to farm labor and those which can, with some difficulty, be dispensed with. Among the first are the draft animals and milch cows, indispensable to the family and work on the farm. For the latter all possible sacrifices should be made to keep them in good condition. The draft animals must be provided with some kind of fodder to keep them alive until spring, when they will be needed for work. All the straw that can be found in the neighborhood must be purchased for them. It is the best fodder, as it is the kind that fills the stomach of the animal. As hay is very scarce, it must be given in rations and with great economy. It should be packed in bales like straw, as there will thus be less waste. Boiled potatoes form an excellent food for stock, and although potatoes are scare this year, yet their nutritious quality will make them cheap. Beets are also a good food, but their nutritious quality is only half that of potatoes. Potatoes sell at 4 or 5 francs per 1,000 kilograms (80 cents to $1 for 225 pounds).

A very popular fodder among French farmers is an article called "tourteaux" (oil cakes), made from the waste of seeds from which edible oils have been expressed. The writer in the Agricultural Bulletin, above referred to, says that these cakes afford a food which is at once concentrated, azotous, and fat, and it admirably supplements straw and potatoes, which though rich in hydrates and carbon are entirely lacking in azote and fat.

TOBACCO IN SIBERIA AND AUSTRALIA.

Consul Roger S. Greene writes that American tobacco seems to be unknown at Vladivostok—Russian being used for the best and Chinese for the cheapest. He gives a list of local firms to whom samples might be sent by mail (addresses on file at Bureau of Manufactures), and suggests that goods should be sent via Japan, the Asiatic ports of Russia being at the present time free of customs duties.

SMALL ENGLISH HOP CROP.

Consular Agent F. W. Prescott writes from Dover that returns from all parts of Kent County agree that this year's hop crop falls short of last season (which was a bad one), and that the present is the smallest crop since the disastrous year of 1882.

The picking was over in fourteen days, although the work usually occupies about a month, and a much less number of pickers were set on this season. It appears from the agricultural returns that for all England there is a decrease of 1,077 acres under hops, as compared with 1904. In round figures the crop for the United Kingdom is put

at 250,000 hundredweight (English cwt. = 112 pounds), an average of about five hundredweight per acre under cultivation.

SAMOAN COPRA CROP CURTAILED BY VOLCANO.

Consul George Heimrod, of Apia, writes that the exports of copra from Samoa in 1905 amounted to 8,600 tons, of which 5,000 tons were sun dried and 3,600 tons cured by the hot-air process. The copra produced by "hot air" is used exclusively by manufacturers of confectionery, and brings from 10 to 20 per cent more than the sun dried article. The flow of lava from the volcano of Savaii has covered over 40,000 acres of productive soil, on which many thousand cocoanut bearing trees were planted. The loss of copra from this source is figured at 500 tons.

COSTA RICA'S COFFEE CROP.

Vice-Consul C. S. Caldwell, of San José, reports that the coffee crop of Costa Rica for the season of 1906—October 1, 1905, to September 30, 1906—consisted of 22,053 sacks, which netted 26,943,541 pounds of clean coffee. This was a decrease of 9,420,875 pounds, or 23.67 per cent, from the 1905 crop. The principal purchaser of Costa Rican coffee is England, which took 76+ per cent of the 1906 crop, while Germany took 11+ per cent, the United States 9+ per cent, and 3 per cent was shipped to other countries. An approximate estimate of the net value of the crop places it at very close to $3,000,000.

PAW-PAW FRUIT.

A statement published some time ago to the effect that "an important drug product of the Montserrat district of Spain is the dried milk of the paw-paw fruit," brings forth the following comment from Consul-General Ridgely, of Barcelona:

Paw-paw fruit is not grown or even known in the Montserrat districts, either of Catalonia or Valencia, nor as far as I can learn in any part of the Spanish peninsula. Reference is probably had to the Montserrat district of Venezuela. The paw-paw tree referred to is a tropical or semitropical tree (carica papaya) grown extensively in Venezuela, Cuba, and the West Indies, where the fruit (called papaya by the Cubans) is preserved in sugar but seldom eaten in its natural state, though a similar fruit is so eaten in Kentucky, Tennessee, and other southern States of the United States. The milk, I am informed, is obtained by searing the trunk or stem of the tree on which the fruit grows. There is a Montserrat in the British West Indies famous for its limes.

EXPOSITIONS.

INTERNATIONAL ENTERPRISES.

ASSEMBLIES IN VARIOUS COUNTRIES.

GENERAL MEETING OF CHAMBERS OF COMMERCE AT MILAN.

Consul James E. Dunning, of Milan, where was held in September the International Congress of Chambers of Commerce, summarized the results of the meeting as follows:

The congress was attended by 300 delegates, representing every continental country, the British Isles, and the United States. America sent a small but active delegation, headed by Frank D. La Lanne, of Philadelphia, president of the National Board of Trade, who was daily honored by special attention accorded to the American position on various questions. Thus, though the United States sent the smallest delegation, it was in this way able to enjoy a distinction not exceeded by any other nation.

QUESTIONS DISCUSSED.

The questions for discussion included universal penny postage, international telephony, international letters of exchange and currency, arbitration of disputes, regulation of international expositions, collection and tabulation of customs statistics, and neutral routes upon the sea in time of war. The congress declared itself, almost unanimously, for universal penny postage, after an address by Henniker Heaton, of England. Philip Hamburger, America's official representative, and of the Pittsburg Board of Trade, introduced a resolution indorsing the plan for an international currency certificate of the value of $5 or 25 francs or lire, and this was favorably received by the congress.

L. E. Chamberlain, of Brockton, Mass., presented a resolution from the board of trade of his State supporting the plan for a neutral ocean route in war time. Considerable time was consumed in perfecting an organization, the International Congress being as yet but 2 years old and somewhat at sea in the way in which it should go. A great deal of progress toward a permanent organization was made in this way, however, and two years hence, when the congress will probably meet at Newcastle, England, more work will be accomplished. Mr. La Lanne, of Philadelphia, as head of the boards of trade of the United States, is prominent in the executive committee of the congress, and the United States will thus be actively represented in the preparations for the next meeting. It has been suggested that at some early meeting the congress come to the United States for its biennial session.

The work of the American delegation was greatly assisted by the high degree of executive ability and unfailing courtesy manifested by Monsieur Cannon-Legrand, of Belgium, the president of the congress.

INTERNATIONAL OCEAN ROUTE IN WAR.

Following is an abstract of Mr. L. E. Chamberlain's argument for an international neutral ocean route in war:

The ocean is the common property of all nations. Each has the same right which the individual has in the public highway. In that highway my rights end where yours begin. I can use the highway freely in the transaction of my business with all mankind, but I can not use it to the exclusion of others having equal rights. I would have no right to blockade the street for my own personal convenience; I would have no right to settle a difficulty with my neighbor by forming a ring on the sidewalk and fighting it out; I would have no right to drive my horse at a reckless speed through a congested street at the peril of others' welfare. As with individuals so with nations.

The principle which the Massachusetts State Board of Trade seeks to invoke is that the great chartered trade routes between the ports of North America and western Europe shall be neutralized by the powers so that all ships, whether merchantmen or vessels of war, whether of belligerents or of neutrals, in time of war as well as in time of peace, may pass to and fro therein without molestation, and that fighting may be forever excluded from these zones. At present, belligerents may engage in naval warfare within this great highway of trade, to the serious interference, inconvenience, and danger of private traffic. Nothing can justify this trespass on the welfare and prosperity of the world. Reason and justice cry out against it. If nations must fight, let them find some convenient spot away from the public highway and allow the rest of the world to go about its business undisturbed by their neighbors' quarrels; or, better still, compel warring nations to fight their battles in their own territory, within their own 3-mile limit, applying to these proposed trade routes the same rules which are now applied within the territorial waters of neutrals. For the peaceful navigation of the nations, these waters are a part of the open sea. The simple passage of ships of war through them is permitted, but all belligerent acts therein are forbidden; and the waters are open to such only on condition that they observe the impartial regulations imposed by the neutral. We want to extend the 3-mile limit across the Atlantic Ocean.

The board of trade I represent believes that States bordering upon this sea should by treaty define a neutral zone or zones, and unite their navies, if necessary, in the useful purpose of protecting and maintaining the neutrality of those zones.

UNITED STATES.

SHOE AND LEATHER ANNUAL EXHIBIT AT CHICAGO.

Representative men in the shoe and leather industry in this country are exhibiting a degree of enterprise and persistency that is highly commendable and worthy of imitation by those directing other leading industries. The advantage of annual gatherings, at which the products of various factories may be exhibited and opportunities afforded for discussions of market conditions, is very generally recognized, and has been urged from time to time by commercial and industrial organizations, by consular officers, and others interested in the promotion of trade at home and abroad. In August last the shoe and leather industry held its first exhibition at Chicago, which was successful beyond expectation, and its great importance and value were so manifest that it has been determined to hold exhibitions annually. Announcement is made that the second exhibition will be held at Chicago the latter part of August next in the Coliseum Building, which has been secured for the purpose, the building in which the last exhibition was held proving too small for its accommodation. Mr. A. H. Lockwood, of Hide and Leather, a weekly paper published at Chicago and devoted to this particular industry, and who was largely instru-

mental in bringing about the first annual exhibition, in a letter to the Department of Commerce and Labor describing the success that attended the enterprise, says:

The first National Shoe and Leather Fair was a great success, twenty States having been represented by exhibits and $2,000,000 worth of business having been transacted. The lines upon which this fair was projected made it more a market than an exposition. The attendance of the general public was secondary to the main purpose, which was to get manufacturers of shoes, leather, etc., and jobbers and retailers of these commodities, to meet together at a central point and there buy and sell. This enterprise met with such great favor that it has been decided to make it an annual event. It was a market place for the benefit of manufacturers and wholesalers of shoes and leather, and the various machines and materials used in producing shoes and leather. It was a market place in every sense of the word. Many foreigners attended and purchased considerable quantities of leather. It was a very favorable opportunity for examining machines and materials of all kinds pertaining to the shoe and leather trade. We beg to express our deep appreciation of the assistance of your Department in making this Shoe and Leather Market Fair known to the world at large by means of your valuable and important daily reports.

RUSSIA.

INTERNATIONAL LEATHER EXHIBITION AT ST. PETERSBURG.

Concerning the proposed Russian leather exposition, Consul-General Ethelbert Watts writes as follows from St. Petersburg:

The International Exhibition of Leather, Furs, Feathers, Wool, Hides, and Skins, with the finished products of the same, is to take place in this city during the month of November, Russian date, the day of opening not yet determined upon, the holding of this exhibition having been postponed from about this time last year on account of existing local disorders. Foreigners are invited to participate. There are in Russia about 3,000 factories manufacturing leather goods of various kinds, valued at an annual output of 80,000,000 rubles ($41,200,000) and this valuation does not include a considerable sum realized from the treatment of hides and furs by peasant home industry and small workshops. These goods, in connection with rawhides and furs, are, to a considerable extent, exported, their export for the last five years showing an average value of 14,000,000 rubles ($7,210,000). The import of these goods, however, is much greater and has regularly increased since the year 1902, when these imports amounted to a value of 25,000,000 rubles ($12,875,000).

Another interesting feature of the exhibition will be the demonstration of the trade in furs and feathers, also the mode of capture of the birds producing the feathers and down, mostly found on the banks of the Caspian Sea, viz, swans, gulls, pelicans, and others. The export of feathers from Russia during the last ten years show an average per year in value of 1,500,000 rubles ($772,500), while the import from abroad in the way ol plumes, ostrich, and marabou feathers only amounts to 250,000 rubles ($128,750) per year. The total production of the raw and finished material above mentioned in Russia amounts to not less than 100,000,000 rubles ($51,500,000) in value.

The exhibition is to embrace five separate divisions, to which are to be added two special departments, the one educational and the other historical.

NORWAY.

MOTOR EXPOSITION IN BERGEN.

Consul E. S. Cunningham calls the attention of American manufacturers of motors to an invitation which has just been issued to participate in the motor exposition in Bergen next year. The consul writes:

The invitation is issued to all Scandinavian manufacturers and Norwegian agents of foreign-built motors. The importance of being represented at this exposition to those who intend to seek some of this trade is apparent, and the advantages of Bergen as a place for such an exposition is well set forth in the invitation. American motors can be exhibited by a Norwegian agent at the exposition, and the award, if any, will be made in the name of the agent. The exposition is to begin on or about July 1, 1907, and will continue eight days or a fortnight.

In the motor trade one can not expect to establish a general agency for the whole of Scandinavia in Copenhagen or Stockholm and conduct the business satisfactorily from there through a general agency with America, dividing the profits which the local agent is entitled to. In some articles such arrangements might work, but in the case of motors I am firmly of the opinion that on the western coast of Norway should be located an agent for this section, who could communicate direct with the factory and who would have special knowledge of the motor and its repairs. The trade, which is considerable, has been supplied chiefly by motors of Scandinavian make, and while these are an improvement over the old-time methods, they do not come up to the efficiency of the American motor, with all its modern improvements.

NEW ZEALAND.

EXTENSIVE INTERNATIONAL FAIR—AMERICANS FAIL TO TAKE PART.

Consular Agent Frank Graham, of Christchurch, and Consul-General William A. Prickitt, of Auckland, make excellent detailed reports on the New Zealand International Exhibition, which opened November 2, from which the following summary is made:

This exposition is the most important one ever held in Australasia. It covers 14 acres, and the cost of the main buildings is estimated at $500,000, though the entire expenditures before opening were probably three times that sum. All nations were invited to exhibit, and it is much to be regretted that American manufacturers did not respond to the 7,000 copies of the official notice which were sent to representative firms in the United States. The Standard Oil Company, through their New Zealand representatives, is the only American concern with an exhibit.

This is all the more to be regretted when it is remembered that of the $64,144,285 total imports into New Zealand last year three-fourths of which are manufactured goods, $7,436,000 worth came from the United States, thus showing the importance of this colony as a consumer of American goods. As a contrast, the handsome Canadian building,

272 by 152 feet, is a feature of the exhibition. Canada, whose contribution to the imports into this colony last year amounted to only $550,000, apparently recognizes the importance of cultivating the New Zealand trade for the disposal of manufactured goods. In this they possess an advantage over the United States, inasmuch as goods, the produce and manufacture of Canada, are not subjected to the additional duty of 10 per cent which is charged on certain classes of goods not the produce or manufacture of Great Britain and her colonies.

RARE OPPORTUNITIES PRESENTED.

The labor laws prevailing in New Zealand, with the short hours of labor and high wages ruling, renders it quite out of the question that the country can export manufactured goods in competition with older countries, or supply its own wants in this direction, for many years to come, and with the general and increasing prosperity of the community, by the great expansion during late years in the value of exports of wool, meat, butter, cheese, grain, kauri gum, flax, gold, etc., this exhibition still offers a great opportunity for American manufacturers to exhibit their wares and send representatives to ascertain the wants and requirements of the New Zealand people.

The objects of the exhibition are educational in the arts, sciences, and manufactures, and, while of educational value to the people of New Zealand, to bring under the notice of the world the advantages possessed by this country in its food-producing capacity, its mineral resources, climate, scenery, thermal wonders, fishing, and prosperity generally, and as a country where the general standard of comfortable living of its people is perhaps higher than in any other part of the world.

MINERAL WEALTH—NATURAL ATTRACTIONS.

Gold to the amount of $325,000,000 has been taken from the earth in New Zealand during the past fifty years, and yet the surfaces of the gold-bearing deposits have comparatively been little worked. Great possibilities await further prospecting and mining combined with scientific methods. The coal mines of New Zealand produce excellent coal, and in close proximity are immense deposits of iron ore awaiting development.

New Zealand offers to the tourist a temperate climate, and mountain, lake, road, and river scenery unsurpassed. Its geysers, thermal springs, and hot and cold lakes are natural wonders which are being visited by increasing numbers each year. No country offers greater attractions to sportsmen. Mountain climbing, deer stalking, trout fishing, and shooting are available to all. The charges are moderate for traveling and accommodation, and therefore touring in New Zealand is not necessarily confined to wealthy people.

HOLLAND.

AMERICAN EXHIBITS INVITED AT AMSTERDAM.

Consul F. D. Hill, of Amsterdam, and Special Agent A. B. Butman forward circulars of a proposed motor and machine-tool exhibition at Amsterdam from the middle of August to the end of September, 1907. The announcement reads:

It is now being felt more and more keenly how necessary it is to prove to the craftsman the great advantage there is for him in the use of small motors and

machine tools in his trade. As gas, benzine, and other small motors are now being brought to such a state of perfection, and in many places central electrical installations are being erected, the craftsman will be able to procure cheap machine installations, without which small trade can no longer compete.

Up to the present, however, the Dutch craftsman has not been given the opportunity to see this advantage from practice. For this reason the Society for the Advancement of Industry (Maatschappij Van Nijverheid) has decided to organize an exhibition exclusively for the craftsman, where the most modern and the best motors and machine tools used in his trade may be seen. Not only will the smaller machines and tools be exhibited, which on account of their reasonable price are within the reach of so many, but also the larger machines, which can only be of advantage when cooperatively used and therefore must be procured by associations of craftsmen.

The Dutch Government has placed a subsidy on the budget for 1907, while the province of North Holland and the municipality of Amsterdam have already granted subsidies. Various representatives of the most important associations of craftsmen in Holland and of the masters' unions in Amsterdam have become members of the different committees of the exhibition.

A congress will be connected with the exhibition, where the interests of the craftsmen will be discussed, including the important question how to furnish the artisan class with the necessary credit to buy machine tools. The catalogue will offer more than a mere recapitulation of exhibits. The exhibitors will be allowed to insert at a moderate price descriptions, drawings, etc., thus giving the catalogue an intrinsic value, besides making it of interest to buyers to consult it. In order to give craftsmen a good idea of the utility of a complete set of machine tools for some trades (as, for instance, the wood-working trade), it is intended to add installations of complete workshops.

The Society for the Advancement of Industry has given the charge of the organization of the exhibition to the board of the Amsterdam department. The exhibition will be held in the "Paleis voor Volksvlijt."

For further details about the exhibition, tariffs, regulations, etc., apply by writing to the general secretary of the exhibition, Mr. Th. Müller Massis, Heerengracht 357, Amsterdam.

Mr. Butman writes that the president of the organization "personally urges the favor of American exhibits, and states that it could not fail to be advantageous to the exhibitor." Mr. Hill recommends that "this matter be given the widest publicity, so as to reach American manufacturers whose participation is very earnestly desired by the authorities of the proposed Amsterdam exposition."

INDIA.

WHAT COMMERCIAL MUSEUMS MAY ACCOMPLISH AROUND THE WORLD.

To the many manufacturers and exporters of the United States who write to Consul-General W. H. Michael at Calcutta as to how they can get and hold Indian trade his invariable answer has been, "Establish agencies in the various cities of India, where your wares may be inspected and prices learned and where orders may be taken which will command confidence and respect." Mr. Michael also sends the following quotation from a Calcutta trade journal:

The consul-general for the United States of America is very anxious to have an American commercial museum established in Calcutta, where samples of all kinds of goods suitable for India could be displayed, accompanied by catalogues and prices, so that Indian buyers could go and be put into direct touch with the houses who supply the articles they want. The consuls of other countries may follow his example. We in India do not take half the advantage of the means now easily within our reach of extending our foreign commerce. Floating exhibitions are now the order of the day. Germany has been using this means, with great advantage to her commerce, for some time past. A steamer fitted up with all kinds of sample goods is sent cruising about among foreign ports, with experts on board able to give the foreigners all the information they want.

Last year the Japanese sent a lot of samples of their goods to Buenos Aires for exhibition in the museum there, with the result that a commercial house in the Argentine capital promptly sent an order for over $5,000 worth of Japanese wares through the Kaitsu Sha of Yokohama. Another large order was given for glassware. These are the first business transactions between Japan and the Argentine Republic. Calcutta is now in very close touch with Argentina. We dispatch two steamers every month to that South American customer with 4,000 tons of gunnies. Why can not we use these steamers as floating museums for other Indian goods which would readily sell in Buenos Aires? Samples of tea have already been sent, but, like Japan, we have lots of other things that would sell readily if they were only displayed to the buyers there.

The truth is there is plenty of money in Buenos Aires and it is getting to be quite full of rich people who want to buy luxuries for the adornment of their persons and their houses. Especially do they want hand-made articles in silver and gold of Indian work, all kinds of curios, and carved furniture, and all the other paraphernalia which are attractive to the eyes of the newly rich. Now, I am sure the captains of our regular steamers to Argentina would be glad to further the establishment of such a trade between India and the Argentine Republic, and the first thing to do is to send samples of the kind of things I have mentioned. Why should we allow Japan to beat India in this game when we have more opportunities of regular intercourse than she has with the Republic?

GERMAN TRADE BOOM.

GREAT ACTIVITY IN ALL THE INDUSTRIES.

Press dispatches from Berlin indicate that German industries are busy and prosperous to a greater degree than ever before. It is stated that every branch of manufacture is taxed to its utmost productive capacity, and in the coal and iron industries supplies must be purchased in increasing quantities from abroad, chiefly from Great Britain, in order to make up the deficiencies at home. The mines and furnaces have booked orders months ahead, but they are unable to deliver the goods in time. The State railroads in the coal regions are far from being able to cope with the traffic requirements, and in the Essen district a shortage of coal cars results in preventing from 35,000 to 50,000 tons of coal from reaching the consumers.

The receipts of the railroads for October were $4,000,000 above those of October, 1905, an increase of 11 per cent, and the foreign trade of Germany shows the heaviest movement ever known in both exports and imports. The business activity in all directions causes an unusual scarcity of labor, the production in the coal and iron trades in particular being kept down through that cause. Nevertheless, both these industries are breaking all records. Many of the coal and iron companies are seeking additional capital to build new plants or enlarge old ones, but most of the enterprises of this description are delayed on account of dear money.

MISCELLANEOUS.

LABOR, SCIENCE, AND INDUSTRY.

HINDU COOLIES LOOKING TO THE EAST.

CONTEMPLATED IMMIGRATION TO AMERICA—LABOR DISCONTENT.

Consul-General William H. Michael tells of the growing sentiment among the coolies of India to go out into the occidental world for the purpose of earning higher wages. They have been arriving in large numbers in British Columbia all this year, though the Canadians object to their presence. Mr. Michael writes from Calcutta:

Ten sturdy-looking Punjab Mohammedans, some of whom could talk English so as to be understood, called on me recently to ascertain whether they would be admitted into the United States if they should go there to find employment on farms. They said they had each 100 rupees ($33.33) with which to pay their passage and other expenses. I told them that with that amount of money they had better not undertake the journey. They said that some of their friends were in America working on dairy farms, and that they thought they could do well in America, as they understood the care of cows and the work of a dairy. But they returned to the Punjab with the purpose of earning more money, and when they had enough money to justify the venture would go to the "great country," which they called the United States.

There is a good deal of discontent in India among the laboring classes, especially the capable and more intelligent laborers. A good many Indians have gone to Natal where they earn from $30 to $35 per month, whereas they would not be able to earn more than $6 or $7 per month at home. Indeed, in most localities the average wage per month is not more than $3 to $4. It is little wonder that there is discontent, and a growing desire on the part of Indian laborers to go away from their own country in the hope of finding better wages and better opportunities.

LABOR RESTRICTIONS AT HOME.

The question of labor supply for the tea gardens in Assam has become so serious that it is engaging the attention of the government of India, which has come to look upon the scarcity of labor in Assam and its necessary consequences with some degree of alarm. An investigation committee was appointed to discover the causes and to provide a remedy. Some have ascribed the cause to the penal contract system, which authorizes a contract for the period of four years and gives to the employer the right of private arrest. Under the operation of the law, which prescribes four years and confers the right of private arrest, the laborers are bound up tight, and placed almost wholly at the mercy of their employers. To be sure, the new law of 1901 limits contracts to four years and prescribes the following minimum monthly wage schedule: For the first year, $1.65 for a man and

$1.35 for a woman; for the second and third years, $1.81 and $1.51; for the fourth year, $1.98 and $1.65, respectively.

SUCCESS OF IMMIGRANTS.

With the prices of foods advancing, with employers binding men and women up tight in a penal contract, with the power of private arrest to enforce the contract, what wonder that even the ignorant and dispirited cooly should rebel. One would naturally conclude that those interested in ascertaining the reason why the persistent effort put forth through several kinds of alluring agencies to induce the cooly to emigrate from India to Assam has failed. Though ignorant, easily persuaded, and long suffering, the cooly after a while learns a thing or two.

Besides, he has heard from his brother who has "struck it rich" in Natal and other places; he has seen evidences of the prosperity of those who have gone to Natal in the way of gold trinkets and money orders sent back to wives and sweethearts; and, finally, he has seen some of his brothers return with enough money to enable them to settle down as agriculturists. On the other hand, he has seen his fellows return after four years of hard labor in the tea gardens of Assam with just enough money to reach the village which they left in high hopes of improving their condition.

I have previously referred to the feasibility of procuring laborers in India to work on the Panama Canal. While Chinese coolies are being sought for this work why would it not be advisable to consider the Indian cooly? The latter is stronger and more intelligent than the former, and is as well, if not better, able to withstand the heat and trying conditions of the Isthmus. There is not the same prejudice against the Indians as exists with respect to the Chinese, and it might be that a trial of one or two thousand Indian coolies would so demonstrate their fitness that other and larger drafts would be desirable upon India for laborers for work on the canal.

DENATURED ALCOHOL.

TALK OF A WOOD-ALCOHOL TRUST—THE DANGER FROM FIRE.

Internal Revenue Commissioner Yerkes says that even though the production of wood alcohol should be controlled by a trust the manufacturer of denatured alcohol will not necessarily be controlled by the same organization, as wood alcohol is not the only denaturent, and it will be easy to find substitutes, while the regulations could be easily changed. The Commissioner has issued the following statement:

The question has been submitted to the Internal Revenue Bureau by druggists, manufacturers, distillers, and others concerning fire risks, and the Commissioner wishes it understood that persons desiring to handle denatured alcohol need have no uneasiness about fire risks in connection with the use of that article; that the benzine prescribed will be a hydrocarbon obtained either from petroleum of coal tar having a specific gravity of not less than 8.00 and a boiling point of not less than 150° C. The benzine will not be a particle more dangerous,

from the point of view of fire risk, than the alcohol itself or many other articles whose presence in buildings does not add to the fire risk or call for a higher rate of insurance.

DENATURING PRIZES.

CONDITIONS OF COMPETITION PRESCRIBED BY FRENCH COMMISSION.

Vice-Consul-General Paul H. Cram, of Marseille, furnishes the conditions of the competition instituted by the French Government, with the object of discovering a denaturing agent for alcohol, and a system for the utilization of alcohol as an illuminant. The following is a translation of the official promulgation:

Articles 2 and 3 of the law of November 29, 1905, institute two prizes: One of 20,000 francs ($3,860) in favor of the person who shall discover an agent for denaturing alcohol more advantageous than the denaturing agent actually known, and offering to the treasury every guaranty against fraud; another of 50,000 francs ($9,650) in favor of the person who shall discover a system permitting of the utilization of alcohol for illumination, under the same conditions as petroleum. The commission of analytical methods has drawn up the following conditions to which competitors must conform:

DENATURATION.

(1.) The denaturant must offer an odor and taste which render it repulsive to the mouth; for this reason are eliminated the must of wine or of dates, the essence of thyme, rosemary, spikenard, rose-bay infusion, etc.

(2.) It must not present an odor too pronounced or so repulsive as to interfere with the domestic and industrial uses of the denatured alcohol, thus excluding the employment of acetylene, of assafœtida, of garlic essence, etc.

(3.) It must not be constituted by a soluble substance which, by leaving a deposit on the wicks or in the mountings of the lamps, would hinder the combustion of the denatured alcohol—as, for instance, marine salt, sulphate of soda, alum, chlorohydrate of ammonia, ferrocyanide, acid picric, infusions of wine dregs and residues, tobacco juice, tincture of aloes, etc.

(4.) It may not be constituted otherwise than by a substance perceptible more or less volatile than alcohol, which, apart from other drawbacks, would allow of its elimination by fractional distillation. Among the substances excluded from this motive are to be noted, in the first category, ether, sulphuret of carbon, the light essences of petrol or of pit coal, and in the second category, essence of turpentine, cresyl, carbolic acid, petroleum, coal tars, tars of boghead and of birch trees, camphor, naphtaline, etc.

(5.) It must not contain any substance capable of attacking the metallic parts of lamps or motors, such as ammonia, nitrobenzine, chlorine phenoles, sulphuric acid, sulphuret of carbon, etc.

(6.) It must not be toxic, such as bichloride of mercury, cyanide of methyl, arsenate of soda, aniline, nor must it contain any poisonous substances, such as the extracts of henbane, aconite, or of digitalis, etc.

(7.) It must be sufficiently economical not to hinder the domestic and industrial uses of the denatured alcohol.

(8.) It must not exist normally in the alcohols of commerce.

(9.) It must permit of the easy and certain detection of its presence in denatured alcohol.

(10) Finally, it must, according to the terms of the law itself, be more profitable than the present denaturant, and offer to the Treasury every guaranty against fraud.

UTILIZATION OF ALCOHOL FOR ILLUMINATION.

Full latitude is left to inventors, provided that, in conformity with the law, the system presented permits of the utilization of alcohol under the same conditions as petroleum. Inventors should address

their propositions, systems or devices, "accompanied by a written description, to "Monsieur le Chef du Service des Laboratoires du Ministère des Finances, 11, Rue de la Douane Paris."

FISHERIES.

CRISIS IN IRELAND.

CALL FOR OFFICIAL GOVERNMENT BRAND OR TRADE-MARK.

Consul Henry S. Culver, in a report from Cork, says that the recent drop in the price of Irish-cured mackerel has forcibly impressed the public, as well as the Government, with the danger threatening this important national industry.

Conditions have been vastly improved within the past decade, yet comparison with the early history of the trade shows but too clearly that more strenuous efforts are needed, in order that the people and the country may enjoy the full fruition of this great source of wealth hidden in the seas and inland waters of Ireland. The Cork Examiner, commenting upon the statements of one of the inspectors of the Irish fisheries, recently made public, attributes the lack of progress to the need of larger and stronger boats, need of adequate pier accommodation, and technical training in the curing of fish. It says:

There is an abundance of fish of superior quality on the Irish coasts, but the fisheries arrangements and equipment are inferior. The story of the autumn mackerel fishery and of the changes in the American market are seriously disquieting, and it demonstrates once again how the reputation of an important industry may be gravely injured by the dishonesty or slovenliness of a few traders. The supply of cured autumn mackerel for the American markets was until recently an exclusively Irish trade. Now, however, Norwegian fishermen engaged on the coast of Kerry or Cork succeed in placing cured mackerel on the American market in a sounder and more attractive condition than the fish exported by the people residing in the district. Recently the Norwegian mackerel were quoted at $14 per barrel, while the same quantity of Irish mackerel, caught under identical conditions, brought only $11, and there was every prospect of a decrease.

There has been much disappointment expressed by the fishing population, and it is said that a large proportion will abandon the fishing, the prices being considered unremunerative. This is an unfortunate state of things, but it is not without explanation. It is asserted that the drop in Irish mackerel was the result of the improper and inefficient curing of the fish. Some fish dealers did not allow a sufficient quantity of salt for the process, others used the same salt twice, and still others were in the habit of placing inferior fish in the center of the barrels. Those defects have been known in another great industry, with results which must have cost this country hundreds of thousands of pounds. This fishing industry is one of our greatest national assets. By its proper development and cultivation a large proportion of the population may be raised above the reach of destitution. It is to be hoped that all who possess influence with the Government or with the fishermen will give their assistance toward placing the fisheries on a stable and satisfactory basis. An official brand or trade-mark should be of some avail.

There were about 700 Irish boats, with 9 men to each boat, engaged in the fisheries last season, and these were only half of the boats and men engaged; the rest came from Scotland, the Isle of Man, and France. Some idea may be had of the importance of this industry to the south of Ireland alone when it is learned that the wages paid to the men engaged on the coasts of Cork and Kerry during the mackerel catch of two months last spring amounted to $852,000. The total spring catch of mackerel for 1905 was 228,000 cwt. (British cwt.=112 pounds) and the autumn catch 274,666 cwt.

BELGIUM.

SUPPLYING INTERIOR EUROPE.

The fishing industry in Belgium has become quite important in the last few years, writes Consul J. C. McNally, of Liege.

Formerly the people of the interior rarely had an opportunity to taste fresh sea fish. Now, with the telephonic and telegraphic communication and the rapid means of transmission in cars specially arranged for the purpose by the State railways, fish is not only distributed throughout Belgium, but is sent into Germany, Holland, France, and interior countries. There are at present 250 fishing boats at Ostend, 192 at La Panne, 61 at Heyst, and 49 at Blankenberghe. The 1905 yield amounted to nearly $1,500,000. Oyster raising at Ostend is rapidly developing, and the Ostend oyster can now be procured in most all of the large European centers. Mussels, lobsters, shrimps, and prawns are sold in great quantities yearly, while the trade in shellfish is greatly increasing.

NEWFOUNDLAND.

VALUE OF COD AND HERRING CATCH.

Consul G. O. Cornelius, of St. Johns, writes that Newfoundland's cod fishery gave employment to 70,000 persons in 1905, during which year 38,037,328 pounds, valued at $1,205,932, were shipped from Labrador to Europe. That represented about two-thirds of the catch on the Labrador coast, the remainder being brought to Newfoundland for curing. The value of the catch on the Grand Banks and around the shores of the island was $8,724,260. The herring fishery is conducted chiefly on the west coast and is mainly engaged in by United States fishermen, who have treaty rights there. The catch in 1905 amounted to 82,771 barrels, valued at $130,567.

The mineral production of the island in 1905 was valued at $1,368,293, of which $1,346,947 worth was exported.

FREIGHT RATES TO INDIA.

REMAIN STATIONARY UNLESS COMPETITION VARIES THEM.

Consul-General William H. Michael names the rates of freight between Calcutta and New York, London, Dundee, and Hamburg, as follows:

To New York:	Per ton.
Saltpeter	$4.25
Jute	5.25
Gunnies	5.00
Hides	12.40
To London:	
Saltpeter	2.88
Rice and wheat	3.60
Pease	3.60
Jute and cotton	4.20
Linseed	4.20
Rape seed	5.00
Poppy seed	5.60
To London—Continued.	**Per ton.**
Gunnies	$6.20
Hides	8.60
Tea	7.70
To Dundee:	
Jute	4.20
To Hamburg:	
Rice and wheat	3.90
Jute and cotton	4.40
Linseed	4.40
Hides	8.60
Rape seed	5.30
Poppy seed	5.80

These rates will vary a little from time to time, but are likely to remain substantially the same the year round, and from year to year unless varied by stronger competition between steamship lines than now exists.

POSTAL SERVICE.

BRITISH POSTAGE TO CANADA AND UNITED STATES.

Mr. Buxton, the British postmaster-general, in a recent address, stated that last year 2,700,000,000 letters were circulated by the post-office in that country, which represented 62 letters for each man, woman, and child in the country. There were also nearly 1,700,000,000 half-penny packages and post cards circulated during the year. He said that last year 27,000,000 letters or packages were undelivered because they were not addressed at all, or because they were illegibly addressed. Among those letters were sums of money amounting to over $3,000,000. The department owed to the depositors in the post-office savings banks over $700,000,000. About 200,000 persons were employed in the post-office department of the United Kingdom. He declared that it was ridiculous and illogical that a letter could be sent to Canada for 1d. (2 cents) while the cost to the United States was 2½d. (5 cents).

Mr. T. Gibson Bowles, an ex-member of Parliament, in a published letter on the subject of the post-office depositors, declares that the post-office savings bank is insolvent. The Government some years ago ceased the annual publication of the balance sheet, Mr. Bowles asserts, for the purpose of not disclosing the deficiency.

HOLLAND'S PECULIAR REGISTRATION LAW.

The Northwestern Miller says: "A Minnesota mill writes of its experience in Holland. For a number of years it sold to one concern in Amsterdam under one of its mill brands, a name made famous both in this country and abroad by years of quality and advertising, and to another concern in Rotterdam, under another mill brand, also well advertised and generally known. Not long ago it occurred to the mill that it would be a good idea to register its brands in foreign countries, and it proceeded to do so. It then discovered that its Dutch correspondents had both registered its brand in their own names. It requested them to transfer the registration to the mill name. This was positively refused. Thus the mill is actually deprived of the use of its own brands unless it sells to the two concerns and no one else. Under the laws of Holland these former representatives could prevent the mill from shipping flour to other parties under its own established brand. Other Minnesota mills have had the same unpleasant experience. Of course, these mills should have protected their brands before they began to ship to Holland."

PYROMETERS FOR COMMERCIAL PURPOSES.

The use of pyrometers is rapidly increasing and is of great benefit for commercial purposes. Formerly the manufacturer had to rely on the eyes of his workingmen for maintaining the correct temperature, and when a workingman left the plant his knowledge went with him. Now the use of pyrometers gives a permanent record which can always be duplicated. Further, it represents a control of the workingman and is a guide, a help to him. They have been so improved that temperatures can now be measured from a distance. At a recent

meeting of the American Electro-Chemical Society in New York manufacturers were congratulated on their enterprise in adopting this improvement.

FOREIGN POSTAGE METHOD.

Montgomery Ward & Co., of Chicago, write to the Bureau of Manufactures as follows:

We see so much in the Consular Reports about insufficient postage being placed on letters from American exporters to clients abroad that it occurs to us our idea for insuring the proper postage on foreign letters may be of interest to your readers. We inclose three envelopes marked "A," "B," and "C," the first named (3⅜ by 6¼ inches) being used where 2-cent postage applies. "B" (4⅜ by 5⅝), which also contains "C" (4¼ by 5⅛) for reply, is used for all letters requiring foreign postage. Being of a distinctive color and size, these are readily discernible by our mailing clerks, who pass all such to one clerk especially charged with stamping foreign mail. The size, moreover, conforms to foreign mails much better than our envelopes of the usual shape. We rarely have complaints of the character you mention. The amount of due postage we are called on to pay has likewise been greatly reduced since we have used self-addressed return envelopes like "C" (on the stamp corner of which is printed "postage from British countries, 2½d."—5 cents).

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CONSULAR REPORTS.

The publications made up chiefly of reports from United States consular officers in foreign countries include the following:

COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.
REVIEW OF WORLD'S COMMERCE, being a summary of the annual reports contained in COMMERCIAL RELATIONS.
DAILY CONSULAR AND TRADE REPORTS, issued daily, except Sundays and legal holidays, for the convenience of the press, commercial and industrial organizations, manufacturers, etc.
MONTHLY CONSULAR AND TRADE REPORTS, containing miscellaneous reports from diplomatic and consular officers compiled from the daily.
SPECIAL CONSULAR REPORTS, containing series of reports from consular officers on particular subjects, made in pursuance to instructions from the Department.

The above consular reports were until July, 1903, issued by the Bureau of Foreign Commerce of the State Department; from that date until June, 1905, they were issued by the Bureau of Statistics of the Department of Commerce and Labor, with which the Bureau of Foreign Commerce of the State Department was consolidated July 1, 1903; since July 1, 1905, they have been issued by the Bureau of Manufactures, Department of Commerce and Labor. For details of these publications, the subjects of which the special reports treat, and the reports remaining for distribution, address "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

The publication of the reports on special subjects, in separate form, was begun in 1890. Those of the following titles are now available for distribution:

Vol. 2 (1890 and 1891).—Olive Culture in the Alpes Maritimes.
Vol. 15 (1898).—Part I. Soap Trade in Foreign Countries; Screws, Nuts, and Bolts in Foreign Countries; Argols in Europe; Rabbits and Rabbit Furs in Europe; Cultivation of Ramie in Foreign Countries.
Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries; Market for Ready-Made Clothing in Latin America; Foreign Imports of American Tobacco; Cigar and Cigarette Industry in Latin America. Part II. School Gardens in Europe.
Vol. 23 (1901).—Part I. Gas and Oil Engines in Foreign Countries. Part II. Silver and Plated Ware in Foreign Countries.
Vol. 24 (1902).—Creameries in Foreign Countries.
Vol. 25 (1902).—Stored Goods as Collateral for Loans.
Vol. 26 (1903).—Briquettes as Fuel in Foreign Countries.
Vol. 27 (1903).—Markets for Agricultural Implements and Vehicles in Foreign Countries.
Vol. 29 (1904).—Macaroni Wheat in Foreign Markets.
Vol. 30 (1904).—Emigration to the United States.
Vol. 32 (1904).—Foreign Markets for American Fruits.
Vol. 33 (1905).—Industrial Education and Industrial Conditions in Germany.
Vol. 36 (1905).—Foreign Markets for American Cotton Manufacturers.
Vol. 37 (1905).—Machine-Made Lace Industry of Europe.
Vol. 38 (1905).—Insurance in Foreign Countries.
Reports of Special Agents:
Trade Conditions in Brazil.
Trade Conditions in China.
Trade Conditions in Cuba.
Trade Conditions in Japan and Korea.
Trade Conditions in Mexico.
Trade with China. Illustrated.

Of the MONTHLY CONSULAR REPORTS, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications of the Bureau available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Department will be grateful for the return of any copies of the monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, franking labels to be used in lieu of postage in the United States, the Philippine Islands, Hawaii and Porto Rico will be forwarded.

Persons receiving CONSULAR REPORTS regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

In order to prevent confusion with other Department bureaus, all communications relating to CONSULAR REPORTS should be carefully addressed, "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

VALUES OF FOREIGN COINS AND CURRENCIES.

[As given by the Director of U. S. Mint and published by Secretary of the Treasury Oct. 1, 1906.]

COUNTRIES WITH FIXED CURRENCIES.

Countries.	Monetary unit.	Value in U.S. gold.	Coins.
Argentina	Peso	$0.96,5	Gold—argentine ($4.82,4) and ½ argentine; silver—peso and divisions.
Austria-Hungary	Crown	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns; silver—1 and 5 crowns.
Belgium	Franc	.19,3	Gold—10 and 20 francs; silver—5 francs.
Brazil	Milreis	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British N. A. (except Newfoundland).	Dollar	1.00	
British Honduras	do	1.00	
Chile	Peso	.36,5	Gold—escudo ($1.825), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Colombia	Dollar	1.00	Gold—condor ($9.647) and double condor; silver—peso.
Costa Rica	Colon	.46,5	Gold—2, 5, 10, and 20 colons ($9.30,7); silver—5, 10, 25, and 50 centimos.
Denmark	Crown	.26,8	Gold—10 and 20 crowns.
Ecuador	Sucre	.48,7	Gold—10 sucres ($4.8665); silver—sucre and divisions.
Egypt	Pound (100 piasters).	4.94,3	Gold—5, 10, 20, and 50 piasters; silver—1, 2, 5, 10, and 20 piasters.
Finland	Mark	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Mark	.23,8	Gold—5, 10, and 20 marks.
Great Britain	Pound sterling	4.86,6½	Gold—sovereign (£) and half sovereign.
Greece	Drachma	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	Gourde	.96,5	1, 2, 5, and 10 gourdes; silver—gourdes and divisions.
India	Pound sterling[a]	4.86,6½	Gold—sovereign (£); silver—rupee and divisions.
Italy	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan	Yen	.49,8	Gold—5, 10, and 20 yen; silver—10, 20, and 50 sen.
Liberia	Dollar	1.00	
Mexico	Peso[b]	.49,8	Gold—5 and 10 pesos; silver—dollar[c] or peso and divisions.
Netherlands	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Dollar	1.01,4	Gold—$2 ($2.02,7).
Norway	Crown	.26,8	Gold—10 and 20 crowns.
Panama	Balboa	1.00	Gold—1, 2½, 5, 10, and 20 balboas; silver—peso and divisions.
Peru	Libra	4.86,6½	Gold—½ and 1 libra; silver—sol and divisions.
Philippine Islands	Peso	.50	Silver—peso, 50, 20, and 10 centavos.
Portugal	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Ruble	.51,5	Gold—5, 7½, 10, and 15 rubles; silver—5, 10, 15, 20, 25, 50, and 100 copeks.
Spain	Peseta	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden	Crown	.26,8	Gold—10 and 20 crowns.
Switzerland	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Piaster	.04,4	Gold—25, 50, 100, 250, and 500 piasters.
Uruguay	Peso	1.03,4	Gold—peso; silver—peso and divisions.
Venezuela	Bolivar	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

COUNTRIES WITH FLUCTUATING CURRENCIES.[d]

Country and monetary unit.	Jan. 1, 1906.	Apr. 1, 1906.	July 1, 1906.	Oct. 1, 1906.
Bolivia:	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Silver boliviano	46.5	47.8	48.0	48.5
Central America:				
Silver peso	46.5	46.5	48.0	48.5
China:				
Amoy tael	76.3	78.3	78.8	73.0
British dollar	.....	.....	.....	52.3
Canton tael	76.0	78.1	78.5	79.2
Chefoo tael	72.9	74.9	75.3	76.0
Chinkiang tael	74.5	76.6	76.9	77.6
Fuchau tael	70.5	72.4	72.8	73.5
Haikwan (customs) tael	77.6	79.7	80.1	80.8
Hankow tael	71.3	73.3	73.7	74.3
Hongkong dollar	50.2	51.5	51.8	52.3
Kiaochou	75.3	77.3	77.7	77.0
China—Continued.				
Mexican dollar	.....	.....	.....	52.6
Nankin tael	75.5	77.5	77.9	78.6
Ningpo tael	73.3	75.3	73.9	76.4
Newchwang tael	71.5	73.4	75.7	74.5
Peking tael	74.3	76.3	76.8	77.5
Shanghai tael	69.6	71.5	71.9	72.6
Swatow tael	70.4	72.3	72.7	73.4
Takau tael	76.7	78.8	79.2	79.9
Tientsin tael	73.9	75.9	76.3	77.0
Persia:				
Silver kran	8.6	8.8	8.8	8.9
Straits Settlements:				
Silver dollar	.....	.....	.....	52.3

[a] The rupee, $0.3244½, 15 to the sovereign, constitutes the money of account.
[b] Seventy-five centigrams fine gold.
[c] Value in Mexico, $0.498.
[d] Coins of silver-standard countries are valued by pure silver content at average market price of silver for the three months preceding date of circular issued by U. S. Treasury Dept.

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DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

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FEBRUARY, 1907

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NOTE.—A number of reports from special agents of the Department of Commerce and Labor and consular officers on the cotton trade in foreign markets, intended for this number of the Monthly, have been omitted on account of their combined length and will be issued as a separate pamphlet, copies of which may be obtained from the Bureau of Manufactures.

NOTE.—An extensive chapter on cotton manufacturing in Europe and Asia and markets for cotton goods in various parts of the world, consisting of reports of special agents of the Department of Commerce and Labor and by consular officers, is omitted from this number of Monthly Consular and Trade Reports and printed as a special bulletin, copies of which may be obtained by addressing the Bureau of Manufactures.

MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C. FEBRUARY, 1907 No. 317

ASIA.

EMPIRE OF JAPAN.

INDUSTRIAL AND COMMERCIAL DEVELOPMENT.

GREAT PROGRESS AS A RESULT OF GOVERNMENT AID—BUSINESS MEN NERVOUS IN FEAR OF INCREASED TAXATION.

Special Agent W. A. Graham Clark sends a letter from Japan dealing with the rapid development of that country. He points out how the Japanese Government is striving to encourage the establishment of all necessary manufactures in order that the nation may be practically independent. In the same way the Government offers the remission of land taxes to those who will cultivate hillside lands, in order to increase the agricultural resources of the country. Great progress is being made in the establishment of textile factories, and Japan is already exporting coarse cotton cloths. The Government aids by loaning money at lower rates than the Government pays on its foreign loans. In subsidizing steamships, establishing branch banks in foreign countries, providing additional schools for commercial and industrial education, and in other ways, great progress is made in the development of the resources of Japan. There is some uneasiness in business circles because of the national debt and the necessity for increased revenue. Mr. Clark says:

The national debt is one-sixth of the total value of all Japan, and the yearly interest alone will amount to over 100,000,000 yen ($50,000,000). The excess of imports over exports for the last ten years averages $23,684,116 a year. To be able to meet the interest on the national debt, much less to pay off the principal, it is almost essential for the Japanese to economize, to buy abroad nothing they can make at home, and to increase their exports of manufactures to a maximum so as to change the trade balance from a deficit to one in their favor. This is recognized by the Government clearly, and no pains are being spared to inaugurate and foster manufactures, to educate the people in the new trades, and to facilitate the transportation and sale of the manufactured products abroad.

METHODS TO PROMOTE EXPORTS.

While the necessity was never so keenly felt before, this has been the policy of the Government for a long while. Practical methods of

fostering the cotton industry have been continued since 1861, until Japan now exports more manufactures of cotton than she imports. Inaugurated by the Government, the industry is upheld by the Government to-day, and can hardly yet stand alone. Among aids by the Government at present the most important is the actual loan of money, which has been borrowed abroad by the Government at from 5 to 8 per cent, and loaned to the mills on long terms at 4½ per cent. The Government loans new dyeing and weaving machinery to the mills, and encourages all new mills and facilitates the sale of their goods in China and Manchuria. It also encourages fairs for the exhibition of goods and machinery, and makes appropriations for commercial and technical schools. Of these there are no less than 11 devoted to dyeing alone.

The number of students at the higher grade schools, other than industrial schools, has considerably diminished of late years, but the increase of applicants for entrance into the commercial and industrial schools is pronounced. In 1899 some 919 students out of 2,789 graduates of middle schools, or 32.9 per cent, entered the higher schools, preparatory to taking the university course. Five years later, in 1904, only 9.1 per cent of the total number of middle school graduates entered the higher schools—in actual figures, 794 out of 8,558.

On the other hand, the number of new industrial schools, both for male and female students, has greatly increased during the same period. The students in these schools numbered 24,719 in 1899, but in 1904 had increased to 114,150, leading all other schools in the rate of increase, which is 43 per cent of the total increase.

SHIPPING FACILITIES FOR JAPANESE TRADE.

The present shipping that reaches Japan is sufficient for all requirements and is more than meeting the great increase in trade. During six months ending June 30, 1906, there were cleared from Japanese ports to foreign countries 6,110 vessels, of tonnage of 8,962,666 tons, as compared with 5,148 vessels, of 6,921,676 tons, and 3,661 vessels, of 5,631,886 tons, for the corresponding periods of 1905 and 1904. Of the total for the first half of 1906, 3,691 ships, with a tonnage of 2,834,415, or 31.6 per cent, were Japanese; 1,078 ships, with a tonnage of 2,997,000, or 33.4 per cent, were British, and only 281 ships, with a tonnage of 1,152,215, or 12.8 per cent, were American.

Shipbuilding and shipowning by Japanese, which were already making steady progress, rapidly advanced after the passing of the navigation-encouragement law in 1896, whereby all Japanese-owned vessels of over 1,000 tons engaged in the foreign trade were entitled to subsidies, the amount of which is proportionate to the distance run and the tonnage of the vessels. The Nippon Yusen Kaisha, the largest Japanese company, operates lines to India, Australia, South America, and Europe. The Toyo Kisen Kaisha operates a line of steamers to America, Philippines, and China. The Osaka Shosen Kaisha operates lines to China and Hongkong. The Daito Kisen Kaisha steamers run to Chinese inland ports. There are two lines to North China, one running via Korean ports to Newchwang and the other to Tientsin. These lines are all subsidized, and the last two are the ones about which it is persistently rumored, though there is absolutely no proof, that the Government has arranged for them to take Japanese cotton piece goods to Manchuria at half rates.

In freight rates America has the advantage. The rate per 40 cubic feet or 2,000 pounds (at ship's option) on cotton piece goods is as follows: New York via San Francisco, $12.50; New York via Suez, $6.68; Liverpool, $10.33; Hamburg, $10.33. On time, New York freight via San Francisco can reach here in twenty-five days, against forty days from Liverpool and fifty days from New York via Suez. The usual time, however, is nearer forty, fifty, and seventy days. This gives our merchants and manufacturers quite an advantage in time over their English competitors, and was one reason why our trade with Japan increased so during the war. The freights vary, of course, at different times. The New York-Suez route, for instance, was only $5.62 in June, and the overland rate $11.25, but both have since raised their rates.

INADEQUATE HARBOR ACCOMMODATIONS.

The trade through the two ports of Kobe and Yokohama has been greatly increased in recent years. Both have fine harbors, but neither have good harbor facilities. In the last ten years the total trade of Kobe has increased 340 per cent and that of Yokohama 240 per cent. The existing facilities, or, rather, lack of facilities, are at present a serious drawback to trade. The mayor of Kobe recently estimated that owing to the defective harbor accommodations shippers and ships lost at least 2,451,823 yen ($1,225,911) during 1905 alone. This state of affairs not only causes loss to the consignees, but it affects the price of goods as well. The loss of $1,225,911 is figured as $806,016 due to cost of keeping ships during their enforced stay in the harbor, $285,131 for lighterage charges, $130,714 for cartage, and the remainder for expenses of unnecessary anchorage. At Kobe there is only one pier for public use, and it is only 582 feet long by 42 wide. As over 2,000 ships used this harbor in 1905, some of them over 625 feet long, it can be seen that very few used the pier.

The present arrangement taxes the consignees in two ways—for lighterage and for cartage. The Kobe Pier Company made average charges during the four years ending the first half of 1906 of 52.27 sen and 43.88 sen, respectively, for the landing and loading of cargoes per ton. After the proposed harbor reconstruction this will be cut down to 28.05 and 19.66, respectively, for landing and loading. This means the saving of 24 sen, or 12 cents a ton. On this unit the present loss on 2,409,430 tons of 1905 will give $285,131 unnecessarily spent for unloading cargo. There being no rail connection between the shore and the station, the Kobe consignees lose annually $130,714 for cartage. Besides, there are other losses, in some cases even greater than those mentioned, accruing from the delay, besides the damage or total loss of goods incurred by the slow mode of unloading and the lack of shelter accommodations. Harbor works are projected that will eventually cost $6,250,000. The Government has stated its determination to make this the great port for the East and thus to take the place held by Shanghai and Hongkong in some respects, as neither of these have harbors as convenient.

At Yokohama the Government has entered into partnership with the city in the harbor improvements whereby the Government is to spend $2,740,000 and the city $1,350,000, a total of $4,090,000. This is in addition to $1,150,000 that had been spent down to the end of 1904 in reclaiming land and making a breakwater. The facilities

for unloading at Yokohama are better than at Kobe in some respects, as it has two piers, but the great majority of vessels have to unload by lighters.

BANKING FACILITIES AND MONEY CONDITIONS AFFECTING TRADE.

The principles and customs of banking in Japan are much the same as in the United States. There are two classes of banks in Japan, the regular national banks and the special banks. Whenever any particular industry is to be advanced or new territory to be exploited the Japanese open a special bank. There are now six special banks besides the Bank of Japan, which is a special bank. It was established by the Government to act as a medium between and backer of the smaller banks, and is the head and center of the Japanese banking system. It has charge of the receipts and disbursements of the national treasury and so is really part of the Government. The Yokohama special bank was organized with the special object of financing the foreign trade of the country. A large portion of Japan's foreign business goes through this bank, and it is the bank most used by foreigners. It has numerous branches, of which one is in Hawaii. It also has branches in China, at Peking and other points. It recently opened a branch at Hankow and one at Antunghien, pursuing the method adopted by England of sending their bankers wherever their merchants go so the two may work hand in glove together. Several agencies have been recently established in Manchuria. The Hypothec Bank of Japan was created to furnish long low-term loans on mortgages of immovable property for agricultural and industrial enterprises. The Industrial Bank of Japan makes it its special object to handle bonds and shares of various kinds. The agricultural and industrial banks are local banks furnishing long-term loans at low rate of interest, and being established in every prefecture are most useful in connection with their central organ, the Hypothec Bank of Japan, in stimulating and supporting the agricultural and other small industries of the interior. The Bank of Taiwan has charge of the Government receipts and disbursements for the island of Formosa and has a semiofficial position similar to that of the Bank of Japan. The Hokkaido Colonial Bank was established to supply capital for exploiting Japan's northern island of Hokkaido.

SAVINGS AND FOREIGN BANKS.

Savings banks are also well established in Japan, now having over $100,000,000 in deposits, or a fourfold increase in ten years. This is even more significant of the thrift and increasing wealth of the people than the fact that in the same time the ordinary deposits have increased over twenty-five fold. There are clearing houses modeled after the clearing houses in London and New York, which have greatly facilitated business since their establishment. There are plenty of foreign banks in Japan established by English, Germans, French, Dutch, and Russians. The only American bank is the International Banking Corporation.

The English dominate the banking business, and this is a great help to them in furthering their commercial interests. They also have a regular system with their banks, by which the clerks and higher officers spend three years abroad and then three years at home. This is a very important factor of their business, for not only does it keep

their head clerks at home well informed and in close touch with the actual financial conditions prevailing on the other side of the world as to exchange, credits, prospects, etc., but it is of great value to the English exporter. An English merchant or manufacturer desiring to introduce a new line in the Orient or to extend an old one can go to his Liverpool or London bankers and find out almost as much as to his prospects and the possibilities of the business as he could do by an actual trip to the East. Japan is already crowded with banks, both native and foreign, but so valuable has this system proved that in their fight for the trade of Japan the English have recently decided to establish another large bank in Japan, and the Anglo-Japanese Bank will open for business in a short time.

There is only one American bank in Japan, the International Banking Corporation, with headquarters in New York City. This is one of the youngest banks here, but is doing a good business, is of value to American interests, and if a system of rotation of officers between New York and Japan was adopted would undoubtedly be of great value to the development of more American business.

AN EASY MONEY MARKET.

Until recently the great need of Japan has been more capital, and from a certain point of view this is still very pronounced. In regard to the actual money, however, the market is now very easy, and the banks are having trouble in finding investments. The present bank rate is about 5.84 per cent per annum. At the present time the remainder of the war notes are coming into the country, the exports of manufactured products are increasing and imports decreasing, and the banks are piling up money steadily. The 6 per cent loan bonds issued in time of war are to be replaced by 5 per cent bonds, and an agent of the Japanese Government is now in London to replace the 5 per cent loan issued at London with 4 per cent bonds. The excess of imports over exports for the first half of last year was $71,847,454; the first half of this year $23,125,281, or less than one-third as much. The exports of silk and coffee for the first half of 1906 broke the record, the former amounting to $16,957,957 and the latter to $5,417,464. The excess of the imports of gold and silver reached $14,538,225. The crops of barley and other cereals were abundant in 1906. The crop of rice promises to break the record in abundance and the increase in income in this respect is estimated at about $90,000,000.

All of these things combine to make money easy, but there is also an undercurrent of anxiety, or at least of caution, on account of the enormous national debt now piled on the shoulders of Japan. By the time the troops are all brought back from Manchuria, and other war expenses settled, this will total over a billion and quarter dollars, or one-sixth of the total value of all Japan and the yearly interest alone will be over fifty million dollars. Taking this into consideration and remembering the depression that followed the boom after the Chinese war, the capitalists show reluctance in investing their funds, and this is the real cause of the great surplus of funds in the banks, and is, therefore, not entirely a good sign. The excess of expenditures, with interest, etc., over receipts for 1907 promises to be large, and until the Diet meets and formulates some plan to raise the necessary sum trade in the banking line will be dull.

There is a great boom in the stock market; shares of all kinds are

very high and making new records. The present inflation is aided, for one thing, by the Government buying up the railroads, which have been the favorite investment for the capitalists, and which, as the interest on the new railway bonds is only 5 per cent, is diverting money elsewhere, and people are seeking to find more profitable investment in cotton mills, stocks, industrial shares, etc. A list published by the newspapers recently shows 46 new companies projected, with capital to the extent of $53,371,000, including cotton mills, flour mills, machine shops, electric power development companies, insurance companies, glass manufactories, salt, sugar, oil, and fertilizer companies. The shares of nearly all existing companies are at high-water mark, as an instance, stock in Japan's largest cotton mill, the Kanegafuchi Spinning Company, the par value of whose stock is 50 yen ($25), was quoted at 115 yen in October, 1905, and October 1, 1906, was held at 157 yen.

BUSINESS MEN ANXIOUS.

Japanese companies along all lines are very prosperous at present, but as a large amount is borrowed prosperity, or prosperity on borrowed capital, there is some nervousness as to the final outcome. The country is now heavily taxed, and this necessarily has its effect on business. For selling goods, warehousing, manufacturing, etc., there are special business taxes, ranging usually from 2 to 25 thousandths of the capital, 15 to 60 thousandths on the rental value of buildings, and one yen for each person employed. There is a graduated income tax laid on all incomes over $150. The land tax has been 2½ per cent of the assessed value of the land. At the last session of the Diet all existing taxes were increased, most of them doubled, and also some special taxes levied. There is now a traveling tax imposed on all travelers of from 1 to 50 sen per ticket, according to class and mileage. Also the new textile consumption tax imposed on the retailer, who of course passes it on to the consumer, a tax of 15 per cent of their value on woolen textiles and of 10 per cent on cotton textiles. The tariff for both revenue and protection was raised considerably. As the Diet in December will have to find new things to tax or raise existing taxes and in either case business will have to suffer, this is the factor that is making capitalists conservative as to loans and is causing money to pile up in banks.

Business is prosperous, and if the tax crisis is successfully met the pent-up money in banks will be put in circulation and force a great advance in all industries. In Tokyo, where the street-railway fare has been 4 sen, of which 1 sen or 25 per cent was a Government tax, the three railways declared they could not make money, so they consolidated and raised the rate to 5 sen, of which the Government's proportion is 1 sen, or 20 per cent. This caused riots in September.

JAPAN'S WEALTH.

The latest Government figures give the wealth of Japan at the end of 1904 as $145.22 per capita, as follows:

Land	$3,011,885,500	Precious and other metals, including bullion	$29,289,000
Railroads	141,563,500	Various	1,713,406,500
Buildings	981,181,500		
General household effects	488,650,000	Total	6,510,403,500
Merchandise	144,927,500		

The national debt is given at $991,000,000, which, it is stated, does not include the cost of removing the army from Manchuria and other special disarming costs yet to be met, so the final debt will be brought up to about a billion and an eighth at least, or one-sixth of the value of all Japan.

This is noted here for the effect it will have on the purchasing power of the people. The Government realizes that to carry this load without stumbling not only the Government but the people must be economical and buy as few luxuries as possible, and at the same time increase their exports as much as possible. As illustrating the first may be noticed an incident that just occurred: The soldiers who returned from the war were feasted by their neighbors, and the veterans started in to give feasts in return, but the minister of finance publicly discountenanced the practice and warned them that it was necessary for all to economize.

The Government in all ways and by all means, even to the extent of becoming an active partner, is striving to increase the export, and so attain not only industrial independence at home, but bring in a favorable trade balance that will help in carrying the burden of national debt.

COMMERCE WITH WORLD.

EXPORTS WERE GREATEST IN COUNTRY'S HISTORY.

Consul-General H. B. Miller, Yokohama, writing about the foreign trade of Japan, says that there was an increase of $58,588,644 in imports and $1,136,357 in exports in 1905 over 1904.

A large part of the increase in imports was due to war requirements, but much was also due to the improved standard of living and general advance in the productive and consuming power of the country. In the imports the United Kingdom held its usual first place, while the United States, for the first time in many years, rose to second place, with a value almost equal to one-fourth of the total. Of the total trade the United States ranks first, with $99,147,800; China second, with $75,650,202, and the United Kingdom third, with $64,209,750. The German trade is notable for the small consumption of Japanese goods and very large sales in return of manufactured products.

The exports for 1905 were the largest ever known. During the entire period of Japan's commercial history up to 1903 the United States has been the leading purchaser of her goods and has had no close second until three years ago, when China began to consume large quantities of products. In 1905 China took the lead, and no doubt will continue for many years to be the chief buyer of Japanese goods.

The imports and exports, by countries, are shown in the following comparative statement:

Country.	Imports.		Exports.	
	1904.	1905.	1904.	1905.
America:				
United States	$29,058,172	$52,143,264	$50,625,386	$47,004,536
Canada	418,721	366,011	1,605,837	1,620,018
Mexico	4,821	83,436	71,524	30,467
Europe:				
United Kingdom	37,496,437	57,690,050	8,821,981	6,519,700
Germany	14,348,691	21,289,980	2,052,061	2,180,201
France	1,167,161	2,564,604	18,160,051	13,613,736
Belgium	3,052,237	5,501,092	155,443	332,760
Italy	336,959	251,045	6,035,335	4,047,733
Switzerland	979,994	1,487,152	294,349	11,554
Austria-Hungary	687,329	1,128,098	271,960	207,052
Norway and Sweden	330,617	1,135,593	4,454	5,941
Netherlands	249,844	436,764	216,366	80,917
All other	117,173	162,986	182,884	104,745
Asia:				
China	27,405,167	26,309,203	33,992,986	49,340,999
British India	34,005,998	45,113,414	4,702,477	3,998,797
Korea	3,200,388	3,075,270	10,194,864	13,309,435
Hongkong	1,247,704	564,298	14,080,051	10,107,540
Dutch India	8,956,242	7,415,002	541,161	616,506
Straits Settlements	1,362,999	1,698,942	2,635,401	2,212,034
Siam	2,892,851	2,293,277	79,711	51,671
Russia, Asiatic	2,263,873	1,863,281	13,907	854,893
Philippine Islands	1,234,453	683,205	837,923	681,836
French India	8,699,834	5,073,978	187,474	203,466
Africa: Egypt	1,238,129	1,499,566	209,264	141,900
Oceania: Australia	2,199,542	3,000,598	2,219,294	2,036,468
All other countries	2,725,129	1,938,900	1,438,354	1,451,900
Total	185,680,365	244,269,009	159,630,448	160,766,805

The annexed table shows the principal articles of import from the United States, together with the increases and decreases, compared with 1904:

Article.	1905.	Increase +, decrease −.	Article.	1905.	Increase +, decrease −.
Breadstuffs:			Iron and steel—Cont'd.		
Flour, wheat	$4,316,774	− $354,731	Machines, hoisting	$67,736	+ $27,398
Wheat	1,214,410	+ 791,239	Machinery—		
Caoutchouc, crude	130,475	+ 55,777	Drilling, etc	119,342	+ 72,921
Cardboard	133,354	+ 69,376	Mining	166,914	+ 125,288
Carriages, railway	192,519	+ 152,868	Paper making	115,562	+ 39,379
Comestibles in cans	200,147	− 600,704	Sewing	176,379	+ 58,577
Cotton, and manufactures of:			Lathes, turning	951,418	+ 661,011
Raw	17,583,151	+13,041,863	Rails and fittings	230,029	− 169,121
Drills	181,380	− 196,677	Steel, not mild	105,825	+ 92,392
Duck	836,193	+ 429,941	Tinned plate	51,947	− 64,220
Sheeting	1,170	− 188,615	Tools and implements	103,709	+ 42,856
Shirting		− 104,504	All other	181,353	+ 116,272
Electrical apparatus, etc.:			Leather:		
Carriages	138,063	− 253,786	Sole	3,510,586	+2,230,055
Motors	929,874	+ 523,761	Other	2,034,553	+1,632,521
Wire	195,504	+ 116,978	Milk, condensed	457,246	+ 141,955
Other	232,250	+ 67,836	Minerals:		
Fish	186,532	+ 89,880	Copper	701,092	+ 701,092
Iron and steel, manufactures of:			Lead	366,853	+ 165,949
Boilers and engines, steam	447,111	+ 233,204	Mercury	151,930	+ 61,680
Engines—			Zinc	88,683	+ 38,715
Fire and pumps	132,486	+ 87,413	Oil cake	61,279	+ 59,080
Locomotives	471,181	+ 294,112	Oil:		
Iron—			Lubricating	363,935	+ 163,244
Bar and rod	183,382	+ 22,464	Petroleum	3,819,982	−1,756,158
Nails	501,254	+ 80,954	Paper, printing	243,366	+ 203,045
Pig and ingot	61,926	+ 55,938	Phosphates	107,511	+ 107,511
Plate and sheet	780,951	+ 602,144	Soda, nitrate of	239,826	+ 168,397
Screws, bolts, etc.	77,677	+ 68,333	Timber, etc	131,158	+ 34,141
Wire	40,668	− 76,367	Tobacco, leaf	1,054,071	+ 335,863
			Wax, paraffin	435,955	− 177,555

In exports to the United States in 1905 the leading articles, with their increase and decrease, compared with 1904, are shown in the following statement:

Article.	1905.	Increase +, decrease −.	Article.	1905.	Increase +, decrease −.
Antimony	$24,959	−$15,714	Porcelain, etc	$1,413,229	+ $447,459
Braids:			Rice	140,891	− 25,773
Straw	315,301	−194,441	Sake	105,026	+ 48,490
Wood chip	206,531	− 87,353	Screens	78,102	+ 28,226
Brushes, tooth	215,646	− 19,841	Silk, and manufactures of:		
Camphor	492,741	−184,386	Raw	26,912,946	−4,460,969
Carpets, hemp and cotton	26,123	− 13,603	Handkerchiefs	976,996	+ 190,875
Coal	78,743	− 39,494	Tissues	5,291,809	− 21,081
Fans	134,303	− 20,514	Waste	65,322	− 27,104
Fertilizer	8,259	− 12,584	Other	75,442	+ 22,140
Furniture	93,711	+ 47,839	Soy	73,753	+ 13,855
Lacquered ware	105,687	+ 41,360	Sulphur	285,693	+ 21,823
Lanterns	40,138	− 13,004	Tea:		
Leather	12,723	− 19,344	Basket fire	1,869,851	− 320,868
Mats, etc	2,339,653	+ 40,792	Pan fire	2,594,155	− 661,684
Menthol, crystal	74,782	− 88,609	Other	209,662	+ 56,519
Nuts, ground	98,469	+ 7,174	Wax, vegetable	88,941	− 248
Paper	116,716	− 30,959			

Consul-General Miller writes that the effect of the new Japanese tariff on the trade of 1907 is somewhat problematical.

It was evidently designed to check imports in many lines and to encourage home production. Should general crop and other conditions continue favorable, the consul-general is inclined to the view that even the high tariff, which went into effect last month, will not have any very serious effect on the trade. Many articles are protected by conventional tariffs until 1911, and if the result of the protective features of the new duties should be to stimulate home production new implements, machinery, and plants would have to be imported; if so, the trade conditions may prove more favorable.

COMMERCIAL ACTIVITY.

EXPORT OF MANUFACTURES INCREASES—LIST OF IMPORTS.

Vice Consul-General E. G. Babbitt forwards from Yokohama a publication showing that in many lines Japan exported almost as much manufactured goods for the first six months of 1906 as were exported for the entire year of 1903. The following are the export returns:

Manufactured exports.	Six months 1906.	Year 1903.	Raw materials and provisions.	Six months 1906.	Year 1903.
Wearing apparel	$1,839,000	$1,740,000	Dyes and paints	$2,239,000	$3,662,000
Paper and paper ware	1,117,000	996,000	Copper	5,353,000	7,453,000
Habutai and other silks	9,555,000	16,134,000	Other metals	1,022,000	1,571,000
Cotton goods	3,473,000	4,253,000	Oils and wax	465,000	1,193,000
Other fabrics	798,000	748,000	Hides, shells, etc	576,000	822,000
Tobacco	565,000	1,063,000	Raw and waste silk	18,781,000	40,693,000
Matches	2,652,000	4,236,000	Cotton yarn	8,203,000	15,709,000
Matting	1,560,000	2,325,000	Coal	4,137,000	9,630,000
Porcelain and lacquer ware	2,196,000	1,672,000	Railway sleepers	1,184,000	461,000
Straw braids	798,000	1,893,000	Tea	2,139,000	6,962,000
Umbrellas and accessories	723,000	743,000	Rice and cereals	1,183,000	2,585,000
			Marine produce	1,644,000	3,536,000
			Other provisions	5,269,000	3,126,000

According to the American idea the classification of cotton yarns, dyes, and paints would come under manufactured products instead of under raw materials. Furthermore the specification of manufactured

goods in the list is not complete, adds the Oriental Economist, and if curios and other items were added it would bring the total of export of manufactured goods up to $44,000,000 for 1903, and $34,000,000 for the first six months of 1906. At the same ratio of exportation the shipments of Japanese manufactures for the calendar year 1906 will amount to about $68,000,000. Raw-material exports do not keep pace with manufactures. Moreover, there is a possibility of the exportation of such articles as hides, shells, oils, waxes, and coal decreasing with the development of home industry.

IMPORTATIONS.

The chief articles of import for consumption the first half of 1906 as compared with the twelve months of 1903 were as follows:

Articles.	Six months 1906.	Year 1903.	Articles.	Six months 1906.	Year 1903.
Watches and clocks	$556,000	$461,000	Other provisions	$984,000	$2,009,000
Wearing apparel	409,000	675,000	Medicines and drugs	2,375,000	3,356,000
Glass and glass goods	735,000	711,000	Dyes and paints	2,259,000	3,864,000
Stationery supplies	1,964,000	1,996,000	Hides, leather, etc	1,427,000	1,135,000
Sugar	4,347,000	10,502,000	Iron and steel	8,524,000	10,965,000
Cotton goods	4,367,000	5,343,000	Other metals	2,520,000	2,908,000
Kerosene oil	3,208,000	5,727,000	Oils and waxes	1,235,000	1,236,000
Woolen goods	5,617,000	5,180,000	Printing paper	595,000	432,000
Other fabrics	670,000	950,000	Raw cotton	28,291,000	34,759,000
Tobacco	129,000	558,000	Cotton yarn	1,498,000	545,000
Liquors	279,000	384,000	Wool and woolen yarn	2,518,000	2,977,000
Rice	9,575,000	25,980,000	Hemp and hempen yarn	1,264,000	1,694,000
Wheat and flour	2,846,000	7,961,000	Fertilizers	8,498,000	6,580,000
Beans	1,981,000	3,184,000	Timber	335,000	337,000
Other grains	958,000	2,008,000	Steamers	713,000	866,000
Eggs	284,000	407,000	Machinery	5,128,000	5,055,000

In lacquer ware the value exported during the first eight months of 1906 amounted to $552,950, showing an increase of $177,700 on the figures for the corresponding period of 1905. The increase is chiefly accounted for by a large export of the ware to Russia.

The department of agriculture and commerce proposes to erect an industrial experiment station in Osaka, for which $89,000 has been included in the budget for the coming year. The object of the works is to improve the quality of manufactures, especially enameled pans, plates, etc., exported to India and China.

The import of saccharine, in anticipation of the new tariff, from January to July last was 72,830 kin (kin=1⅓ pounds), of which 38,326 kin was imported in July, and the total import up to September 30 is estimated at 400,000 kin. Vernacular contemporaries remark that the sweetening power of saccharine is 600 times that of sugar, so that 400,000 kin of saccharine will represent 240,000,000 kin of sugar, and if 400,000 kin of saccharine is substituted for sugar the Government may lose from the sugar-consumption tax something like $7,500,000. An opinion that saccharine is injurious to health remains to be confirmed. Meanwhile the demand for the article is rapidly increasing.

STEADY INCREASE IN DEMAND FOR PHOSPHATES.

Mr. Babbitt submits the following data on Japan's importation of phosphates in 1905:

Of phosphorites the total imports were 195,293,000 pounds, valued at $1,218,415; other phosphatic manure, 45,391,557 pounds, valued at

$340,878. The United States furnished of the phosphorites $107,511 worth; Mexico, $82,500, and the United Kingdom, $23,665 worth; of other phosphatic manure, Germany supplied $82,815, and the United Kingdom, $170,947. Whether the rock is bought f. o. b. in foreign markets or on the dock in Japanese ports is a matter to be arranged between buyer and seller, and it has been found convenient to send vessels from Japan to secure return cargoes of fertilizers.

Japan affords an excellent market for phosphate rock, and there is likely to be a steady increase in the demand. [For further information it is suggested by Mr. Babbitt that parties communicate with a Yokohama firm whose address is on file at the Bureau of Manufactures.] For fertilizing purposes there are also imported large quantities of bean cake, animal bone, and fish manure. The Government employs experts to examine all imports of fertilizers and materials used in their manufacture, and such that are not of the required standard are rejected, sale at any price being prohibited. The Japanese manufacture more than sufficient sulphuric acid for their own use, in 1905 exporting to the value of $103,229.

PROFITABLE CEMENT, FLOUR, AND PAINT MANUFACTURING.

It has been agreed among the capitalists of Kobe to organize a cement-manufacturing company with Japanese and Chinese joint capital. The promoters are Woo Ching-don (naturalized Japanese), Mak Sui-Pan (naturalized Japanese), Takigawa Benzo, Kanematsu Fusajiro, Matsukata Kojiro, Kawanishi Seibei, all of Kobe, and Yu Hsia-ching, of Shanghai, who has important relations with the railway industry in China. It is proposed to float the company with a capital of $250,000, the output of the concern to be extended until 20,000 casks of cement are delivered every month, to keep pace with the growing demand.

It is generally admitted that the flour-milling business in Manchuria is a very profitable one. It is now carried on by the Chinese by very primitive methods, and as it is impossible under present conditions to meet the demand the import of flour is rapidly increasing. In view of this fact, capitalists in Tokyo, Yokohama, and other places, including Hiranuma Enjiro, Abe Kosuko, Fukusawa Momosuke, Woo Chin-don, and others, are taking steps to form a company to commence milling in Manchuria. The capital is fixed at $500,000.

Owing to the remarkable increase in the demand for lead paint, the plant of the Japan Paint Company, of Tokyo, has proved inadequate to execute the orders received. The company has recently commenced making varnish, and has also discovered a new process for extracting lead from certain ore for use as raw material in paint making. The board of directors has decided to double the $250,000 capital and to extend the Osaka factory.

OPPORTUNITIES IN FORMOSA.

INDUSTRIAL DEVELOPMENT REQUIRES MANY MODERN MECHANISMS.

Consul J. H. Arnold, of Tamsui, in the following report shows the inequality of commerce between Formosa and the United States and the chance now presented to equalize this state of affairs:

Considering the fact that the United States takes more than one-half of the Formosan exports not taken by Japan (about $1,000,000 of

Oolong teas is accredited as exports to China, when in reality it is transshipped to the United States), it is only right for the American merchant to consider himself entitled to a good share of the island's import trade. At present imports from the United States into Formosa are about one-sixth of the amount of the exports to the United States.

American manufacturers of sugar machinery should bear in mind that the sugar industry in Formosa is growing rapidly, and that within the next few years many large mills will be constructed. With the growth of this industry there will also be a demand for tramway materials.

A recent concession made by the Government to a Japanese syndicate for the exploitation of the forests in the Mount Asi district will create a demand for sawmilling machinery, logging equipments, and railway supplies. The timber stands in mountainous regions, which will be made accessible by the construction of a railway about 40 miles in length. In addition to the bridges and other railway material required for the completion of the main line of the Formosan Government railway, there will also be a demand for such materials for the projected line from Taihoku to Gilan and Sano on the east coast, a distance of 50 miles. The works department of the Government has under consideration the construction of waterworks at Taihoku and the installation of an electrical plant for lighting and supplying power to manufacturers. A 600-horsepower plant is now in operation, but is inadequate. It is quite probable that there will be a good demand for electrical machinery and equipments.

CHINA.

INCREASES IN REVENUE.

REORGANIZATION OF FISCAL AND CUSTOMS ARRANGEMENTS.

According to a report transmitted by Minister Rockhill and prepared by E. T. Williams, Chinese secretary of legation at Peking, China is inaugurating a national system of revenue taxation, and shows no disposition to suppress the opium trade, which is such a valuable Government revenue producer. The prospective net income of over $10,000,000 a year from opium taxation will be used for equipping the Chinese army on a modern basis. The report follows:

The heavy payments required on account of the Boxer indemnity and the numerous reforms undertaken since 1902 have made it imperative that the Chinese Government should either find new sources of revenue or reorganize the fiscal administration. Efforts have been made with some success in both directions during the past four years.

The revenues of the imperial maritime customs have increased very greatly since 1901, due partly to the natural expansion of trade, but more largely to the raising of the tariff on imports to an effective 5 per cent. In the year preceding the Boxer rising the receipts were 26,661,460 haikwan taels (haikwan tael in 1905=$0.73 United States currency). The next year the troubles caused quite a decrease, the revenue amounting to but 22,873,985 haikwan taels. In 1901 the country began to recover, and since that time the increase has been

very rapid. The total revenue of the imperial maritime customs in haikwan taels in 1901 was 25,537,574; in 1902, 30,007,043; in 1903, 30,530,688; in 1904, 31,493,156; and in 1905, 35,111,005. Reduced to American currency the receipts for last year amounted to $25,631,033.

The imperial maritime customs was established to collect duties on goods shipped by foreign-owned vessels or vessels of foreign type owned by Chinese. Other customs dues have been collected uniformly by the native customs. The stations of this latter service are found at all ports, great and small, along the seaboard, at important river ports, and along the extensive land frontier. Customs dues belong to the imperial treasury in contradistinction to the likin, which is a comparatively recent tax levied for the benefit of the provincial revenues. After the signature of the protocol of 1901 it was decided to place under the charge of the maritime customs all native customs stations within a radius of 50 miles from the open ports. Most of these stations have been gradually taken over during the past four years, but the control is much more effective at some ports than at others. Where the control is direct the increase in the receipts is very marked.

As a result of the change of administration at Santuao, a small port near Fuchau, the collection rose the first year to nearly six times the amount of the fixed annual remittance. Improvement has been continuous since that time; the number of employees has been reduced from 600 to 70, and the revenue in 1905 amounted to 81,807 taels, or more than seven times the sum formerly sent annually to the Government. A similar condition of affairs seems to have obtained at all these native customs stations, and improvement in the revenues is proportionate to the amount of control exercised by the maritime customs.

REVENUE FROM VARIOUS SECTIONS.

There are no statistics from which one may learn the actual amount received in any one year from the native customs by the imperial treasury, and nothing but a rough estimate of the collections can be made. Of the 35 open ports in China, only 11 reported the collections at the native customs stations during 1905 in haikwan taels, as follows: Newchwang, 444,700; Tientsin, 867,405; Kiaochow, 53,501; Ichang, 42,339; Ningpo, 105,883; Santuao, 81,807; Fuchau, 248,000; Canton, 371,934; Kongmoon, 59,509; Samshui, 4,149; and Wuchow, 169,107, or a total of 2,448,334 haikwan taels.

The important ports of Shanghai, Hankow, Kiukiang, Chefoo, Amoy, and Swatow are among those which have not reported. The 11 ports mentioned represent a little more than one-third of the total foreign trade and a little less than one-third of the total revenue of the imperial maritime customs. But there is no necessary relation between the sums collected at any one port by the maritime customs and those collected by the native customs, since it is impossible to establish any definite proportion between the native junk trade and that carried on in shipping of foreign type. At some ports the coasting trade of the junks may be injured by the establishment of steamer lines; in others, with numerous waterways communicating with the interior, the advent of foreign steamers may greatly stimulate junk trade. But even if we knew how much is collected at the open ports we would still have but a part of the total revenue from the native

customs, since there are numerous stations outside the area controlled by the imperial maritime customs.

TOTAL CUSTOMS REVENUES.

We can estimate pretty closely what is collected by the stations on the Russian border, for we have the Russian reports of the total trade between that Empire and China and the maritime customs report of the amount of this trade done by sea. The balance is about 30,000,000 taels per annum done overland, imports and exports both included. The export tariff has never been revised, but remains as in 1858. At that time it was calculated on a basis of 5 per cent ad valorem, but is probably less than that amount now. By treaty Russia pays on imports through Kiachta and generally by land routes two-thirds of the maritime tariff, which is 5 per cent ad valorem. If, then, we estimate the whole duty on imports and exports in this trade at $3\frac{1}{3}$ per cent, we shall not be far wrong, and the actual sum collected will be about 1,000,000 taels. It will, perhaps, be not unfair to estimate that an equal amount is collected by the remaining stations not administered by the maritime customs, and we have total collections by native customs as follows:

	Taels.
Eleven ports in charge of imperial maritime customs	2,448,334
Estimate remaining ports imperial maritime customs	4,880,000
Russian frontier	1,000,000
Remaining stations	1,000,000
Total	9,328,334

We may be sure that until the imperial maritime customs took charge of the stations near the open ports no more than 2,000,000 taels were ever paid from this source into the imperial treasury in any one year. But there is little room to doubt that an effective administration of the whole service would secure a revenue of 10,000,000 taels per annum. The Chinese Government is now aiming to establish such an effective service.

THE OPIUM TAX.

Trustworthy statistics of the total production of opium in China or of the total amount of the taxes levied on the native drug are not available. The customs authority at Ichang for two years past has acted as a general collectorate for all duties on native opium in the four Provinces of Hupeh, Hunan, Kiangsi, and Anhui. In July, 1905, this arrangement was extended to eight Provinces, and by an order dated May 25, 1906, was further extended to the whole Empire, with the exception of the three Manchurian Provinces and Chinese Turkestan, where, however, it is to be put into operation later. By the order just mentioned the head office of the collectorate is established at Wuchang. The most popular opium grown in China is produced in the Province of Yunnan. Next in popularity is the product of the prefecture of Hsü-chou, in Kiangsu, and third in rank that from Szechuen. In his report for 1905 the commissioner of customs at Chungking, in the last-named Province, says that the Szechuen opium has increased less than 5 per cent in ten years, while the Yunnan drug shows a gain of no less than 227 per cent in the same period. The movements of Yunnan and Szechuen opium down the Yangtze during

the six years 1900–1905, as reported at the Ichang custom-house in piculs of 133⅓ pounds each, were as follows:

1900	26,443
1901	30,555
1902	22,098
1903	24,888
1904	36,856
1905	36,311

These figures do not, of course, represent the total production of these two Provinces, as much was used locally, and much found its way into other Provinces by land routes, and not a little by illicit channels.

IMPORT OF OPIUM.

In 1901 Sir Robert Hart estimated the total production of opium in China at 150,000 piculs per annum, about three times the amount of the foreign drug imported. The annual import of the latter during ten years past has averaged about 50,000 piculs. From the returns there is seen to be on the whole a steady decline taking place in the consumption of foreign opium. The number of smokers has been increasing, but the majority of them are turning to the native drug.

Missionaries resident in the interior of China uniformly bear witness to the rapid increase in the area of poppy cultivation during the past twenty years. Opium is produced in greater or less quantity in every Province of China proper, and in Turkestan and Manchuria. The Manchurian article is rapidly growing in favor, particularly in the Province of Shantung. Many attempts have been made in the past to suppress the habit of opium smoking by stringent laws prohibiting it, but these do not appear to have been enforced with much zeal except spasmodically here and there by energetic and patriotic statesmen, who were not themselves addicted to the vice, and felt that it was sapping the strength of the nation. Perhaps one reason for the neglect to enforce the prohibition was the severity of the penalty imposed for its violation—strangulation, subject to revision at the autumn assize. The rapid increase in the production of the native drug since the quasi recognition of the trade by taxation of poppy fields, the levy of excise on the prepared opium, and license charges on the opium joints has again aroused thoughtful statesmen to a consideration of the question of checking the use of the drug.

MOVEMENT FOR INCREASED IMPORT DUTY.

Several opium tax increases in Hupeh Province in 1900 and 1901 led to a revival of foreign importations into regions where it had long been unknown.

It was then seen that unless the foreign opium should be subjected to equally heavy charges the effort to tax the vice out of existence would fail, and in 1903, inasmuch as most of the foreign drug is imported from India (the remainder being Persian), representations were made to the British Government by the Chinese minister in London looking toward the increase of the duty upon foreign opium. The reply of the British Government, as quoted in the Peking Gazette, was that the tax on the native drug must be increased by the same amount as that on the foreign article to secure fair treatment. Upon this a memorial was submitted to the Throne asking that the customs duty and likin on foreign and native opium be increased by an equal amount, and the mat-

ter was referred to the proper boards for consideration and report. So far as the foreign drug is concerned, the matter apparently still remains under consideration, as no later report upon the subject has been published.

A SINGLE NATIONAL TAX ON OPIUM.

According to the new regulations a consolidated opium duty of 100 Kuping taels plus a fee for administrative expenses of 15 Kuping taels will be collected on every 100 catties (133⅓ pounds) net weight of native opium to the exclusion of any and every other kind of tax, and no rebates whatever will be made, no matter in what Province the drug is produced or where eventually sent for consumption. Duty and fee are payable in full at the first office or barrier met with en route. An estimate is to be made, based on the collections of 1904, of the amount which should go to each provincial treasury, and henceforth that amount and no more is to be forwarded to such treasury, while all the balance is to be forwarded to the imperial treasury. The funds thus accumulated are to be devoted by the Imperial Government to army reorganization purposes.

The tax heretofore levied on the poppy fields is abolished and the provinces are strictly enjoined not to levy any tax whatsoever on opium except that provided for in the regulations. The lamp tax, however—that is, the license fee to open an opium-smoking house—is still to be allowed.

The taxes mentioned are those on raw opium. The tax on prepared opium is at double the rate given, and on opium dross one-half that rate. Travelers are to be allowed, however, to carry with them, free of all duty, 10 taels (Chinese ounces) of prepared opium and 20 of opium dross.

The abolition of the tax on the poppy fields, while that on grain remains, and the strict prohibition of all provincial taxes on the drug shows that there is no intention to reduce the output, and no hope that opium smoking can be prevented by these taxes. In fact, while the tax is greatly increased for most of the Provinces, it is considerably lighter than that imposed during the past year, and more in the four Provinces where the consolidated tax scheme of 134.79 haikwan taels per picul originated. In spite of this heavy tax the amount of Szechuen and Yunnan opium which passed the maritime and the native customs in 1904 and 1905 was the largest on record. It is evident that the consolidated tax is not intended to destroy the trade.

This consolidated tax is to be levied in Kuping taels, of which 100.8 equal 100 haikwan customs taels. The tax of 115 Kuping teals on each 100 catties of opium would therefore amount to 114.08 haikwan taels. As to probable revenue from this tax there are no reliable statistics of the opium production, and only a rough estimate can be presented.

OPIUM IS A VALUABLE REVENUE PRODUCER.

From various customs and statistical reports the minimum output may be estimated at not less than 175,000 piculs. But, if we accept the estimates of British Consul-General Hosie, or those of F. E. Taylor, formerly statistical secretary of the imperial majesty's customs, and others, who have made careful studies of the subject, the total output may be as much as 300,000 piculs. It has even been asserted

by Chinese officials in recent discussions upon the question that the output is ten times that of the import of foreign opium, which would make the native opium amount to 500,000 piculs per annum, but this seems wholly incredible.

To estimate the probable revenue to be derived by the Imperial Government under the new arrangement we may take the output as 200,000 piculs per annum, which would yield a revenue, at 115 Kuping taels per picul, of 23,000,000 Kuping taels, or 22,817,460 haikwan taels. Of this amount a certain portion must be paid to the provincial treasuries as compensation for loss of likin, which, at an average of 40 taels per picul under the old arrangement, would be 8,000,000 taels, leaving more than 14,000,000 taels for the imperial treasury to be applied to army reorganization purposes. The fact that it is to be used for this purpose indicates that the Government expects a steady revenue from this source for years to come and confirms the view that there is no intention to kill the trade by taxation.

SALT TAX AND LIKIN.

The salt tax remains substantially as heretofore. In 1897 it was estimated at 13,659,000 taels, and in 1900 at 13,500,000 taels. These figures may be accepted as sufficiently accurate for to-day.

The much-abused likin tax is a provincial levy. Originally it was levied on various kinds of merchandise in transit, but the lo-ti shui, or terminal tax, collected in many places may be included in the estimate. Recently, too, likin has been levied on certain industries, such as brick making, silk weaving, the output of the factory or the number of looms being liable to assessment. The rates vary in different Provinces and on different goods, and the actual amount collected does not depend so much upon the tariff schedule as upon the rivalry between various likin offices, which compete one with another to induce the trade to go via their routes. Stations are located upon all highways of travel by land or water, one being found about every 20 or 30 miles, and the same goods being required to pay several times. The nominal rate is from 2 to 3 per cent ad valorem, and this may be collected four or five times on the same goods in one and the same Province. It is impossible to say definitely to what it amounts, but it has been estimated at from 12,000,000 to 16,000,000 taels. We may take it as amounting to about 13,000,000 taels.

LAND AND GRAIN TAX.

The land tax remains nominally just as it was levied at the foundation of the dynasty. This is paid in two installments each year—in the spring in money and in the autumn in grain, though this latter is now generally commuted for money, and the tribute, rice, intended for Peking is bought in the market by the officials concerned. It has been carefully estimated by various writers and is put down as not more than one-twentieth or one-thirtieth of the gross produce. The magistrate of a district (county) is liable for the assessment upon that district unless, owing to drought or flood, the Imperial Government shall have granted a reduction or remission of the taxes. As a rule, more is collected than the amount of the imperial assessment, and the balance goes into the private coffers of the magistrate or to pay customary presents to his superiors. There is consequently a great waste in the collection of this tax. The full tax in money and in grain is estimated

by Consul-General Jamieson at 31,648,000 taels, by former British Consul Parker at 33,507,000 taels, and by others as high as 35,000,000 taels. We may take it as amounting on an average to some 32,000,000 taels. In March, 1904, Sir Robert Hart, inspector-general of customs, submitted a memorial recommending a readjustment of the land tax, and showed that by allowing each landholder to report the size of his holding, subject to fine for false statement, and by assessing the land at not more than 1 tael on an average for every 10 mou (1.66 acres), the Government ought to receive not less than 400,000,000 taels per annum. A number of high officials, however, strongly opposed this suggestion of Sir Robert, and the Government, afraid of agrarian disturbances, refused to adopt the suggestion.

MISCELLANEOUS DUES—SUMMARY.

Under miscellaneous may be classed a variety of taxes, such as fees for alienation of title to lands, licenses for pawn shops, taxes on tea, reed taxes on Government lands, and house takes. Until the past two years the charge for the registration of the transfer of real estate has amounted to about 3 per cent on the nominal value of the property as recorded in the deed, which is generally much less than the sum actually paid for the property. Recently the charge has been increased in most of the Provinces, and amounts to from 5 to 8 per cent on the value of the property transferred. In this Province (Chihli) the proceeds are devoted to a partial support of the new public school system. These miscellaneous taxes are estimated by Mr. Jamieson as amounting to about 5,500,000 taels per annum. We may sum up the revenues of the Chinese Government, therefore, as follows:

	Taels.
Imperial maritime customs	35,000,000
Native customs	10,000,000
Opium consolidated tax	22,000,000
Salt gabelle	13,600,000
Likin	13,000,000
Land and grain tax	32,000,000
Miscellaneous dues	5,500,000
Total	131,100,000

Of this amount about 25,000,000 taels must be allowed for provincial expenditure, leaving for the imperial treasury the sum of 106,100,000 taels.

CHANGES OF ADMINISTRATION.

Reference has been made already to the transfer of certain of the native customs stations to the control of the imperial maritime customs, and to the organization of a special service for the collection of the new consolidated tax on native opium. The most important change, however, is that instituted by the imperial edict of May 9, last, appointing a comptroller-general and an assistant comptroller of customs. This act aroused much criticism among the foreign residents of China, and the opinion was pretty generally held that it constituted a breach of the pledge given by China that while the maritime customs revenue remained security for certain foreign loans there would be no change in its administration. It is a mistake, however, to view the new administration solely in its relation to the maritime customs. It is charged with the administration of customs of all sorts, and has

control not only of the maritime customs, but of the native customs, including such institutions as the Peking octroi, and of the new consolidated tax upon opium. How much further its authority may extend does not yet appear.

It is evident, however, that if any order is ever to be brought out of the fiscal chaos in China, there must be a central authority empowered to investigate the various customs and excise services, to require correct accounts of the collections, adjust the rates and put an end to preferential treatment, rebates, and all forms of squeeze. Whether the comptrollers will introduce such reforms or not remains to be seen; they certainly have the opportunity thus to justify their appointment.

ANTI-OPIUM REGULATIONS.

A dispatch from Peking to the New York Times states that on November 21 eleven stringent Chinese regulations were issued for carrying into effect the antiopium edict. The poppy-culture acreage must decrease one-tenth annually and cease altogether in a decade. All opium smokers must register, and those under 60 must decrease its use 20 per cent annually. All Government officials under 60 must abandon opium within six months or give up office, but may retain their rank. Those who continue its use secretly will be deprived of both rank and office. Shops selling opium are to be closed gradually, and the opium dens closed within six months. Medicines counteracting the opium taste are to be furnished the people free, or at cost price. The foreign office is commanded to negotiate with the British, French, Dutch, and Persian ministers with a view of terminating the export of opium to China within ten years. The importation of morphia and hypodermic syringes is prohibited.

TRADE OF FUCHAU.

CHINESE PORT NOT APPARENTLY HURT BY DECLINING TEA TRADE.

Counsul S. L. Gracey, of Fuchau, China, reports on the trade and conditions of that port as follows:

The local effect of the boycott movement at Fuchau did not seriously interfere with trade, although there was at one time a great falling off in the imports of flour and kerosene. The total trade of Fuchau for 1905 amounted to $11,648,000. The exports of camphor increased from 161,536 pounds in 1904 to 538,133 pounds in 1905, with an average value of $114 per 133 pounds. The quantity of tea sent abroad was 18,051,733 pounds, against 22,663,466 pounds in 1904. Within twenty years the tea trade has relatively dwindled to a meager quantity. Thousands of acres have gone out of cultivation, and it is puzzling how such a collapse could have taken place with so little outward effect on the prosperity of the producing districts. The effort made for a few years past to introduce silk culture does not seem to have produced the desired results. This was owing largely to the lack of enterprise in conducting a new undertaking and to the failure of the women to learn silk weaving. The transportation of the eggs of the silk worm in good condition from Canton or Chekiang was another difficulty that was hard to overcome, as they were liable to hatch in the time required for transportation.

The principal articles of import and export are shown in the annexed table:

Imports.	Unit.	1904.	1905.
Cotton, manufactures of:			
Drills	Pieces	8,579	11,763
Prints	do	9,074	10,756
Shirtings	do	94,195	91,122
T-cloth	do	113,049	125,723
Velvets	Yards	73,861	93,592
Yarn	Pounds	5,298,133	5,769,600
Dyes	Value	$43,827	$36,977
Flour	Pounds	2,848,666	3,624,666
Metals	do	4,447,200	6,188,000
Oil, kerosene	Gallons	4,506,489	3,066,690
Opium	Pounds	513,466	440,133
Sugar	do	9,749,733	11,627,066
Woolen goods:			
Blankets	Pounds	13,527	20,913
Camlets and lastings	Pieces	2,380	2,801
Cloth	Yards	11,318	14,063
Stripes (Spanish)	do	22,537	29,276
EXPORTS.			
Boxes (oil cases)	Number	418,167	549,805
Canes	do	208,760	165,080
Mushrooms	Pounds	47,866	325,866
Oranges	do	4,015,200	5,502,533
Paper, and manufactures of	do	8,458,000	5,383,600
Tea	do	22,663,466	18,051,733
Timber, etc	Square feet	329,607	215,857
Umbrellas	Number	388,783	360,882

Fuchau had one mint for several years, known as the Viceroy Mint, but early in 1905 two more were established by the local government. Foreign machinery was installed in new buildings and an immense output of copper coin of the 10 "cash" denomination was turned out. The three mints produced 2,000,000 coin per day. The value of the new coin rapidly decreased, owing to overproduction and the failure to obtain circulation in other provinces. On this account an edict was issued from Peking restraining unlimited coinage and fixing the amount to be coined at 300,000 per day and forbidding their export to other provinces. This caused the two new mints to close down indefinitely.

DALNY'S OPENING COMMERCE.

MANY TRADERS ARE FLOCKING TO NEW MANCHURIAN PORT.

Consul J. E. Jones, of Dalny, reports that great commercial activity is manifest in all parts of Manchuria. His letter reads:

Dalny, with its superb harbor facilities and railroad leading to the northern provinces, is developing rapidly into a commercial city of no mean importance, and merchandise is coming direct from many ports. The British-American Tobacco Company was the first of the foreign firms to enter the Manchurian market as soon as the city of Dalny was declared an open port, and promptly entered into competition with the Japanese tobacco monopoly. It has succeeded in forcing the price of Japanese cigarettes down to about half of what they sell for in Japan, and are sending agents throughout Manchuria with the evident purpose of capturing the trade. Even in the Japanese bazaars, in fact in the one operated by the Government itself, other cigarettes than those made in Japan are on sale, and there is already quite a demand for them.

The United States is supplying practically all the flour used in Manchuria. Each steamer brings thousands of bags. The Mitsui Bussan Kaisha, a prominent Japanese concern, is the agent for a large Pacific slope flour concern, and the product of these mills is being rushed into the interior. The Manchus are great users of flour and the product from the United States is best adapted for their uses. It has the glutinous qualifications which is necessary in the making of macaroni, which forms one of the principal diets of the Manchurians.

CHINESE MERCHANTS BELIEVE IN DALNY.

It is almost an axiom in China that where there is trade there you will find the Chinese merchant. There is a unanimity in the belief that Dalny within five years will rival many of the big treaty ports in importance. Prosperous Chinese merchants from interior cities are coming to Dalny daily and casting about for a place to do business. The city is handicapped for the want of houses, but this will be remedied when the spring building season opens. A large number of important buildings are planned and contractors are busy getting everything in readiness for the 1907 campaign.

Representatives of foreign firms are coming to Dalny every day looking over the situation. All go away favorably impressed, and some remain to be on hand when the business is ready. Up to this time there have been few Americans in Dalny. The business interests of the United States should be represented here, and at once. There is a big market for nearly every class of goods produced in the United States, but no one here to push them. The situation is ripe for the exploitation of American goods.

With the advent of the South Manchurian Railway it is believed that Dalny will become the great bean-cake market of the Far East. It will be necessary, however, to meet the Liao River transportation in freight rates. A large bean mill will be erected early next spring by the Mitsui Bussan Kaisha in the suburbs of Dalny, to grind beans, extract the oil, and press the bean cake for export.

EXPORTS AND IMPORTS.

The official foreign trade returns for July and August, the two months preceding the opening of the port, have been compiled. The exports were: Ground rice (reexported), $1,093,990; beans, $93,620; waste silk, $4,963; bean cake, $13,025; and furs, $1,136. The imports for the two months were: Cotton goods, $91,596; muslin, $124,990; cotton thread, $85,089; flour, $20,713; rice, $23,726; wine (sake), $9,647; beer, $34,251; sugar, $20,129; paper, $20,477; charcoal, $9,237; lumber, $67,630; and copper, $66,629.

The figures of foreign trade for September have not as yet been compiled. It is stated officially, however, that 27,980 bags of flour have been imported during the month at an estimated value of $29,192.

There promises to be a struggle for the oil trade of Manchuria. Already three companies are in the field—the Standard, the Nobel, and the Borneo. These are all striving to obtain the same location for the erection of oil tanks. The site in question is one which the Russian company—the Nobel—secured during the Russian occupancy and upon which it did some considerable work. The applications have all been duly presented and sent to Tokyo. At the present time the only oil imported is that of the Standard company.

EXTENSIVE MANCHURIAN SALES.

GREAT COMMERCIAL ACTIVITY REPORTED BY RUSSIANS.

The progress of Russian trade in Manchuria since the war is described by the editor of the Harbin Viestnik as an attestation of the commercial revival of the country.

He states that during the first months of the year 1906 the carriage of goods by the Chinese Eastern Railway reached the total of 306,000 tons per month. During the whole of 1903, prior to the war, the total only amounted to about 360,000 tons. As regards trade in imported Russian goods, textiles, sugar, kerosene, ready-made clothing, india rubber, and leather foot gear, tobacco, etc., find a vast circle of buyers in spite of very poor business organization. Of Russian imported goods the most extensive trade is in textiles. Of certain sorts of cotton fabrics the local traders can not take too large a supply, especially the so-called "maleskine" in blue and white. Toward the end of the war in Harbin alone there were some 400 combined grocery, wine, and spirit shops. Comparatively few of these have been closed.

The demand for metals and metal goods is enormous, due to the energetic building campaign now going on in Manchuria, and to the evolution among the natives in favor of European instruments of labor. The use of galvanized corrugated iron is also very extensive, mainly for roofing and warehouse purposes. Japanese articles are stated by the Russian editor to fail to make much headway in the market, being for the most part articles of luxury, such as silk textiles, cabinets, and toilet accessories which are beyond the means of the masses of the people. The remaining Japanese manufactures are so inferior in quality to the European that there can be no competition with the latter. All Japanese goods are extremely flimsy and perishable, their seeming cheapness availing but little. Their matches strike badly, their sugar is watery, their salt has various foreign admixtures, etc. As traders the Chinese are distinguished for enterprise, economy, and business solidarity. With respect to monetary obligations they are generally very trustworthy.

CITIES OPENED TO TRADE.

Minister W. W. Rockhill, of Peking, transmits copy of a note received from the Chinese foreign office informing him that the Japanese troops having evacuated Hsinmin Fu (or tun) the said locality is opened to international trade.

Minister Rockhill also cables that the Chinese Government and the Russian representative at Peking agreed to the opening on January 14, 1907, of the following three cities of Manchuria to international trade and residence: Kirin, Harbin, and Manchurie.

FOREIGN WARES.

GOOD MARKET FOR SOAP, ENAMELED WARE, GLASS, AND HARDWARE.

In a recent report on the import trade of China the British commercial attaché at Peking furnishes the following valuable information:

Soap will always command a ready market in China. I have traveled in many out-of-the-way places where it has never been heard of, much less seen, and where my cake of soap was looked upon with the

greatest curiosity. On the other hand, I have seen the best French toilet soap displayed in a shop about 300 miles from the Tibetan border at the exorbitant price of about 75 cents a cake. Such soaps are treasured more than used. What is wanted in these remote places is a common scented colored soap at a reasonable price. There are, of course, substitutes for toilet and washing soaps in China, while the materials for its manufacture are abundant.

In the trade in cutlery, electro-plated ware, and enameled ware, while the first two are for the well-to-do classes, the last named is within the reach of all. Where one used to see a chinaware basin or wooden tub among the odds and ends of a Chinese traveler's baggage on board ship or on land, the enameled is now prominent, and, being unbreakable, it has come to stay and to oust the more fragile article. There should be one in every household in China, and even far away Tibet is importing them across the Indian frontier. The same remarks apply to glass and glassware, lamps, and hardware. There is an ever-increasing desire to possess such goods.

In these days, foreign household stores, beer and porter, spirits, and wines are by no means despised by the Chinese. Some of them are, indeed, too common, and even when not of the best brands have to be well paid for.

BAD BUSINESS METHODS.

Consul-General John Fowler, of Chefoo, reports that three examples of the indifferent methods followed by certain American exporters have lately been brought to his attention. The complaints preferred in each instance by the Chinese importers were examined by boards of survey appointed by the consul-general, and found to be well founded.

In one case a shipment of mirrors made by a New York firm was so insecurely packed that out of a total of ninety pieces thirty-three were broken and rendered absolutely useless.

In another case a firm on the Pacific coast sold to a dealer in Chefoo a large quantity of bottled beer, which was found on examination to contain so much foreign matter as to render it unmerchantable.

Another American firm shipped a cargo of flour which proved to be inferior to sample, and refused to make allowance for its error.

The consul-general points out the injury that seems certain to result to American trade in the Far East if such methods are to be followed by exporters, and suggests the adoption by this country of the German system of boards of survey as a corrective measure.

LOW WAGES PAID.

Harry L. Paddock, consul at Amoy, transmits the following report on farmers and scale of wages paid in China:

The farmer is up before daybreak and at work in his sterile fields—fields whose productivity has been exhausted except under high fertilization—and he returns to his little shanty after nightfall. To the view of the foreigner he never rests, and for this never-ending labor he raises a crop of rice or corn that does not support his family for the year. His clothing consists of a loin cloth in summer and a coarse cotton suit in the winter. He is simply an example of all the laborers and artisans of China. All work hard to live and all receive

a compensation commensurate with that of the farmer. The following scale of wages will give some idea of the daily returns received for labor done (in United States gold): Laborer, 10 cents; mason, 15 cents; artisan, 10 to 20 cents; and clerk, 40 to 50 cents.

BRITISH INDIA.

INDUSTRIAL TRADE OF BURMA.

INDUSTRIAL AND MERCANTILE LIFE AT RANGOON.

Consul-General W. H. Michael sends from Calcutta the following trade information concerning Burma:

The American consular agent at Rangoon states that there are about 60 business firms there exclusive of the small shops. Of the firms, 2 are American—the Standard Oil Company and the Baptist Mission Press; 6 are German (partly with head offices in London) and 42 are English. Besides these there are many native firms doing large businesses, wholesale and retail. The ruby mines in the vicinity of Rangoon are worked by a London concern which has to pay a certain royalty to the government for all stones taken out.

The two oil producing and refining companies in Burma are increasing their business each year. The government excludes all outside oil companies from landing oil in bulk in Burma. Of course this restriction is aimed almost wholly at the Standard Oil Company which, however, does a big business in Burma and in India.

Parts of upper Burma and the Shan states produce tea, the greater part of which is made into "pickled tea," which is considered a great delicacy by the Burmans and is largely consumed by them. The rest of the crop is dried and sold to home consumers, none being exported. There are only a few coffee plantations and the crop is all consumed in Burma.

The population of Rangoon is 250,000, of which 3,200 are Europeans and Americans. In the city and district are 80 rice mills, 32 sawmills, 2 oil works, 4 iron works, 2 shipbuilding yards, and 12 ice factories.

While a considerable export and import trade with America is carried on, not a single American ship was seen in Rangoon harbor during the past year. In reply to my question as to how trade with the United States may be increased in Burma, the consular agent says: "It is hard to say how this can be done, owing to the amount of foreign trade having a foothold here. But probably the best way would be by placing samples and advertisements with the houses and bazaars dealing in goods of all description, competing at the same time with the goods of other foreign countries by favorable prices."

BENGAL OPIUM SALES,

The sales of Bengal opium in October realized nearly $2,066,666 and were $416,666 better than the estimate, while the seven sales of Bengal opium realized over $13,800,000 and exceeded the estimate by nearly $2,266,666. On the other hand, the pass duty on opium exported from Bombay was $62,666 worse than the estimate in September, and for the official year to the end of September was over $266,666 below the budget estimate.

REFRIGERATORS AT CALCUTTA.

SHIPMENT FROM SOUTHERN STATES UNSATISFACTORY.

Consul-General Wm. H. Michael was in the largest department store in Calcutta recently and had his attention called to some refrigerators that were manufactured in a Southern State of the United States, concerning which he writes:

The Englishman in charge told me that he had just received 15 of the refrigerators, and that owing to the imperfect manner in which they were packed or crated not one of the number was salable. He showed me some of them still in the crates, and I was bound to admit that they were poorly crated and that it was nothing to be surprised at that the refrigerators were so damaged by reason of the poor packing that they could not be sold unless they were first repaired. He had already placed several of the number received in the hands of mechanics for repair, and he hoped to be able to dispose of the lot, though at a sacrifice. He also stated emphatically that he would buy no more refrigerators or furniture from the United States until American manufacturers had learned how to pack goods and were willing to reduce their knowledge to practice. It is inexplicable to me that after all that has been said on this subject by American consuls that American manufacturers persist in disregarding the advice given and continue to pack goods for delivery by sea 12,000 miles away precisely as they pack the goods for delivery by rail only a few hundred miles away.

WOOD NOT SEASONED.

Take the case in hand to illustrate the folly of poor packing. Had the refrigerators been properly packed it would have meant, other things being equal, further orders from this same house, and this transaction would have given prestige to American dealers in other lines. Instead of this result, the want of proper judgment in packing by this one firm has given all American dealers a black eye. Unfortunately, the bad packing was not the only bad feature of this refrigerator transaction. The wood of which the refrigerators were made was too green—that is, not sufficiently dried. This was apparent to even a casual observer. Referring to this the manager of the department remarked that, "if the goods had been well packed and come through in salable condition, the green condition of the material in the construction of the refrigerators would have brought trouble upon our house sooner or later."

The one thing that I desire to emphasize is the necessity of packing goods intended for a foreign port in such manner as will assure safety against the ordinary wear and tear of the rough voyage all packages undergo between the United States and India. It would be better not to sell a dollar's worth of goods than to sell and pack them in a manner to discredit the sale, and raise the suspicion that it is unsafe to buy of America at all.

A traveling commercial agent who called on me not long since was asked what his greatest difficulty was in getting trade in India. He said his main trouble was not in selling goods, but in having them delivered properly packed and on time. He added that American manufacturers, as a rule, seemed to be indifferent to the demands of

the trade in India, the Straits Settlements, and China. The failure to pack properly, and the failure to deliver the goods promptly, made it very difficult to place a second order.

STRAITS SETTLEMENTS.

MANY VALUABLE EXPORTS.

THE PRINCIPAL PRODUCTS AND THEIR DESTINATIONS.

Vice-Consul-General G. E. Chamberlin supplies the following statement which shows the quantity, in tons (2,240 pounds), of exports in the principal articles from the Straits Settlements, including the ports of Singapore and Penang, during the first nine months of the calendar years of 1905 and 1906 to the United States direct, to England, the continent of Europe, and total to all countries.

Article.	United States.		England.		Continent of Europe.		Total all countries.	
	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.
Coffee	314	384	.....	3	631	600	945	987
Cubebs	30	56	.....	.....	.....	.....	30	56
Cloves	118	23	60	9	1	.....	179	32
Gum copal	3,172	2,881	2,156	1,532	1,488	1,004	6,816	5,427
Gutta-percha	167	339	1,090	730	722	702	1,979	1,771
Gutta jeletong	6,639	9,070	324	509	860	571	7,823	10,150
Gambier	10,707	11,240	5,729	5,906	8,123	5,500	24,559	22,648
Nutmegs	317	372	126	92	8	30	451	494
Pepper:								
Black	4,236	6,407	1,407	1,018	4,888	3,710	10,531	11,135
White	1,404	1,168	1,390	1,483	2,567	1,503	5,361	4,154
Pineapples (cases)	83,615	56,918	284,662	282,701	39,000	34,980	407,277	374,579
Rattans	3,797	2,990	1,790	1,837	8,165	7,179	13,752	12,006
Rubber	1,215	592	536	529	756	452	2,507	1,573
Sago	3,930	2,141	17,251	17,372	10,581	10,713	31,762	30,226
Tapioca	7,814	7,978	14,216	15,949	5,767	7,145	27,797	31,072
Tin	10,777	13,055	26,434	23,552	6,051	6,524	43,262	43,131

PERSIA.

RUSSIA AND GREAT BRITAIN ENJOY BULK OF BUSINESS.

The Indépendance Belge publishes statistics, apparently derived from the Belgian officials in charge of the Persian customs, relating to the trade of Persia from March, 1905, to March, 1906. According to these statistics, the trade of Persia with Russia during the year in question amounted to 391,835,340 krans ($38,137,330), Great Britain being second with a trade amounting to 148,417,254 krans ($14,445,436), and Turkey third with trade of the value of 58,180,163 krans ($5,662,659). Next in order of importance are France, Austria-Hungary, Afghanistan, and Germany, the trade of the last with Persia being of the value of 7,167,289 krans ($697,588).

AFRICA.

KINGDOM OF ABYSSINIA.

MADE ACCESSIBLE BY A RAILWAY.

ENTERED THROUGH PORT OF JIBUTI, WHICH HAS A GOOD HARBOR.

Mr. Frank R. Mowrer makes his first commercial report as consul-general at Adis Ababa, on Jibuti, the principal settlement and harbor in the protectorate of the French coast of Somalis and dependencies, and the seaport for Abyssinia.

Until 1892 Obok was the chief village, but Jibuti was then chosen as the seat of the colonial government, on account of its superior harbor, which, although unimproved, is very deep and unobstructed and affords safe anchorage for several hundred vessels, and because of the more easy construction of the railway to Abyssinia than through the desert and the mountains of the Tadjourah district. It is contended that the harbor is the best from Suez to the Far East. Almost an unlimited quantity of coal, water, and provisions are stored here to supply ships, although as yet this business is unimportant. The outlying district for about 18 miles in width is desert, and the town itself can not be said to have any commerce. It is solely a transit and forwarding center.

The chief factor that makes for the future of Jibuti is the railway, 186 miles in length, to Diré-Daonah, at the Abyssinian frontier. The complete scheme is that this line shall be extended to Adis Ababa, in the heart of Abyssinia, concerning which the three powers—Great Britain, France, and Italy—have made a joint proposal to Emperor Menelik for its control and the initiation of certain reforms. Prior to the existence of the railway to Diré-Daonah all the merchandise to and from Abyssinia passed by Zeilah, in British Somaliland, 36 miles southeast of Jibuti. Thus it is now that Abyssinia sends by Jibuti skins, ivory, wax, coffee, musk, and gum, and receives cottons, petroleum, sugar, candles, hardware, alcohol, Marie-Therese dollars, etc.

There are at Jibuti about 350 Europeans, chiefly government and railway employees and merchants, and from 15,000 to 20,000 natives, much like nomads in habits. They seem to have no initiative for progress, though intelligent by nature and peaceful, and know no necessity of life, save to eat and to sleep. They are employed as coolies to load and discharge cargo and as servants, being composed of the Somali and Daukali tribes of the region, and Yemen Arabs.

The local commerce is practically nil. Most of the firms and companies are agents for or in some way connected with the exportation or importation of goods of Abyssinia. With the completion of the railway to Adis Ababa, the immense natural wealth of Abyssinia would be opened up, and Jibuti would become the emporium for east Africa—notwithstanding the Cape to Cairo Railway—as Harrar, the

most productive province, is nearer Jibuti. [The principal general merchants and agents at Jibuti are named by Mr. Mowrer, the addresses being obtainable from the Bureau of Manufactures.]

MADAGASCAR.

COLONY'S FOREIGN TRADE.

AMERICA SELLING ONLY A SMALL AMOUNT OF GOODS.

Consul W. H. Hunt, of Tamatave, reports on the trade of Madagascar as follows:

The total foreign trade of the island of Madagascar for 1905 amounted to $10,374,214, of which $6,021,293 were imports and $4,352,921 were exports, being an increase of $922,352 in imports and $616,930 in exports over 1904. The following comparative statement shows the total trade by countries:

Country.	Imports.		Exports.	
	1904.	1905.	1904.	1905.
United States	$15,694	$22,199		
France and colonies	4,681,890	5,670,030	$2,831,005	$3,051,440
Germany	44,478	58,981	557,251	793,199
England and colonies	243,549	180,486	235,264	409,291
Africa, East Coast	79,694	58,269	99,239	57,135
Sweden and Norway	3,867	11,069		
Other countries	29,769	20,259	13,232	41,856
Total	5,098,941	6,021,293	3,735,991	4,352,921

The imports, by classes, were: Cotton goods, valued at $2,542,432; liquors, $585,852; farinaceous foodstuffs, $368,741; metal articles, $165,124; metals, $76,653; marble, stone, cement, etc., $143,317; coal, $60,006; and other produce, $2,079,168. The exports consisted of gold dust worth $1,326,867, hides $719,631, oxen $207,826, rafia fiber $158,921, rubber $934,299, wax $191,918, and other articles $513,458. The imports from the United States consisted of petroleum, canned meats, furniture, lard, and several other minor articles.

FIBER PRODUCTION.

The production of rafia fiber is becoming better known in the European and American markets. It is woven by the natives into every variety of fabric, from the coarsest for packing to the most fanciful for dresses and jackets. It has the appearance of yellow silk when finely woven, and is being utilized for making Panama hats. It partakes of the properties of fiber and straw, and can be spun or split to a fine degree.

A great deal of attention has been given to cotton growing in Madagascar. It grows wild throughout the island and is called wood silk by the natives. Attempts are being made on the east coast to cultivate and systematize its production. As an inducement to cotton growers, or to those who would engage in its culture, it was decided to transport all cargoes of cotton to Havre, and sell it in the best market at no expense whatever to the grower. Consequently numerous attempts were made to cultivate it, but thus far the results have not been satisfactory. The cotton plant is not vigorous, and on

account of the humidity of the east coast region the cotton rots and there is no means to dry it.

CABLE LINE TO MADAGASCAR, REUNION, AND MAURITIUS.

The newly laid cables between Madagascar, Reunion, and Mauritius are completed and in connection generally with the world's cables.

The rates for cablegrams between Europe, or in transit thereto and therefrom, and Madagascar and Reunion by the Dakar-Cape Town-Mauritius cable, or via Malta and Aden, are 65.137 cents per word or 26½ cents for press cablegrams. The term "Europe" includes Algeria, Tunis, Tangier, and Tripoli. The interchange of cablegrams between Madagascar, Reunion, Mauritius and Mozambique costs 20 to 40 cents a word.

MAURITIUS.

SUCCESSFUL COMMERCIAL WORK.

CONSULAR EFFORTS ASSIST AMERICAN TRADE IN THE ISLAND.

The efforts of Consul Theodosius Botkin, of Port Louis, to interest the people of Mauritius in American manufactured articles are beginning to afford him some encouragement. He writes:

Several merchants and traders of Port Louis have agreed to handle certain specified American articles and lines, among which are fiber-cleaning machines, a certain make of automobiles, certain brands of smoking tobacco, condensed milk, watches, and jewelry; and I feel sure that I shall soon have purchasers for a combined gasoline motor and sail fishing boat, and for a concrete-pressed stone machine, also barber chairs, corrugated iron, and a pipe-cutting and threading machine. If, when a certain fiber machine already ordered, arrives, it shall be found efficient for cleaning the aloe leaves, then the sale of a good number of them will be assured. The same is true of a certain style and make of automobile ordered, and which is already spoken for by a British officer of high rank. The order for the motor and sail fishing boat seems to wait only for definite instructions regarding length of boat and spread of sail desired.

During the last twelve months four considerable shipments of Mauritius hemp, besides one of American whalebone, have been sent from this port to the United States. It is the first time any Mauritius products have gone directly to our country since June, 1901. Other shipments are soon to be made, as I am informed, including both hemp and vanilla beans.

SIERRA LEONE.

LOSS BY WITHDRAWAL.

AMERICAN FIRM IN WEST AFRICA RETIRES AND BUSINESS SLUMPS.

Consul W. J. Yerby, of Sierra Leone, West Africa, reports that the imports from the United States to that colony fell off in 1905 to less than half of that of 1904.

Since Yates & Porterfield, an American firm, discontinued their business in 1905, there has been no American importing house at this

place. There is a great demand for American goods, such as tobacco, flour, furniture, glassware, haberdashery, kerosene, perfumery, provisions, soap, cottons, and other articles. The total imports in 1905 amounted to $3,282,328; those from the United States aggregating $98,344, while in 1904 they were valued at $206,480. The largest items from the United States were kerosene, worth $25,929; lumber, $34,854; flour, $18,614, and tobacco, $11,850.

[An excellent report on the commercial development of the Sierra Leone region, indicating the progress of European countries there, was published in Monthly Consular and Trade Reports for August, 1906.]

ALGERIA.

SOME TRADING LINES.

SPRING BEDS AND MATTRESSES—METALLIC GOODS WANTED.

Consul James Johnson reports that spring beds and mattresses, and articles of this class generally, are in considerable favor in Algeria. The consul further reports:

The extreme mildness of the climate makes it desirable to have beds and seats that will not harbor insects, and metallic mattresses are largely employed. There is no feeling of prejudice against American goods, and I am disposed to think that a fairly important trade could be done if these were brought to the notice of buyers in a proper manner. The most important point in this connection is perhaps that all correspondence and descriptive matter should be in the French language. When goods can not be offered c. i. f. Algiers, they should always be quoted f. o. b. at an American port.

(Consul Johnson furnishes a list of merchants in Algeria who handle this class of goods, which is on file with the Bureau of Manufactures.)

VEGETABLE HAIR FOR EXPORT.

Consul Johnston, in a further report from Algiers, states that vegetable hair or fiber is produced from the dwarf palm, which grows wild and very abundantly in most of the hilly districts of Algiers. The fiber is already well known in America, which takes a certain quantity of the production. It is esteemed for its durability and its immunity from insects. But the production naturally diminishes as cultivation is extended, and it seems probable that eventually the quantity available for export will be but small. The quantities exported in 1905 were in value, according to the official returns, as follows: Germany, $177,400; France, $147,000; Austria-Hungary, $106,200; Belgium, $102,800; Italy, $102,400; United States, $59,000; Great Britain, $46,000; and other countries, $26,000. The two exporters are Jules Borgeaud and A. Delacoste, Algiers and Oran.

AUSTRALASIA.

COMMONWEALTH OF AUSTRALIA.

GREAT PURCHASING POWER—ATTRACTIVE MARKETS.

VARIETY OF MANUFACTURES IMPORTED—RELATIVELY SMALL QUANTITIES FROM UNITED STATES.

The following report on trade conditions in South Australia, which contains suggestions for American manufacturers, was furnished by Special Agent Harry R. Burrill:

The imports of South Australia, as shown by the customs returns, are sufficiently large to indicate its importance as a market worthy of cultivation. In the reports heretofore submitted, it has been pointed out that American manufacturers have been somewhat derelict in their attention to the export market, and especially so if they desire to retain their hold. It is impossible too forcibly to represent that American goods can not be expected to compete with English or German goods of similar quality, style, and price if they are handled by Englishmen, Germans, or by Australians. What we need here is personal representation, and we need it at once.

PERSONAL REPRESENTATIVES NEEDED.

The largest importers of South Australia are either Australians, with the natural British predilection, or branches of English firms who are, quite properly, building up their own industries to the exclusion of all others. An American manufacturer is seriously handicapped in his endeavor to do business in this State, not necessarily because of the inferiority of the goods, but because his agent will not push wares confided to him. Human nature is much the same the world over. It is the Australian for the Australian, the Englishman for the Englishman or Australian as second choice, the German for the German, and the American for the American. American saws, edged tools, windmills, shoes, furniture, and various other commodities that might be mentioned, are pushed here by the importers simply because their merits create the demand and no other goods of similar description can obtain a competitive hold on the market. The excellent results of a personal representative are shown in the sale of agricultural implements in South Australia, due to the pushing, wide-awake, business methods, which invariably insure success at home. It is not necessary that the representative of an American manufacturer should be an American, but it is vitally essential that he should be

thoroughly Americanized so far as selling goods in competition with his home or other countries is concerned.

COMBINE SUGGESTED.

It probably would not pay any single American manufacturer to send out an agent to represent him exclusively, but it would pay a group of American manufacturers to appoint an American agent here, empowered to give subagencies to men or companies dealing in those commodities and authorized to sell his goods at the price that he shall name and no higher. The men or companies now transacting business in all articles imported into South Australia possibly can not be excelled as business men, but it is not conceivable that they will give preference to articles manufactured in the United States when they have in stock goods from their own country of the same quality which they can sell at practically the same prices. It is a question of nationality so far as the importers are concerned, but it is a question of quality and price when the consumers are reached.

EXTENT AND VARIETY OF TRADE.

The imports into South Australia from the United States for the year 1905 were valued at $2,000,000 in round numbers. The principal articles may be divided as follows: Wearing apparel, $25,000; rifles and shotguns, $20,000; boots and shoes, $40,000; clocks and time registers, $25,000; cordage and twine, $30,000; tinned fish, $15,000; furniture, except metal, $12,000; agricultural, horticultural, and viticultural machinery, $250,000; reapers and binders, $70,000; plate and sheet iron and steel (except galvanized) $12,000; cash registers, $10,000; gas and oil engines, $7,500; mangles, clothes wringers, etc., $15,000; machinery, including boilers and pumps, $60,000; sewing machines, $30,000; bolts and nuts, $3,500; wire nails, $10,000; barbed wire, $35,000; piece goods, $30,000; soap (perfumed), $15,000; timber (Oregon), $750,000; staves, $40,000; tools of trade, not machines, $75,000; vehicles, including bicycles, carriages, wagons, etc., $60,000; motors, $35,000, and tool handles, $20,000.

The imports from the United Kingdom were about $10,000,000; from British possessions, $27,500,000; Belgium, $1,361,000; Germany, $1,400,000; Holland, $140,000; Japan, $120,000. The total value of imports from all countries for the year was approximately $43,000,000.

The accompanying table shows the total value of exports from South Australia oversea and of wool, wheat and flour, copper, apples, and wine for each quarter of the year 1905. These figures will be of interest to Americans engaged in the export trade, for they show what is produced here in large quantities and might encourage reciprocal trade relations:

Article.	Quarter ending—				Total.
	March.	June.	September.	December.	
Staple exports	£1,104,122	£410,719	£464,876	£1,669,442	£3,648,359
Wool	80,666	8,127	58,327	1,103,949	1,251,069
Wheat and flour	871,695	280,568	231,089	231,548	1,614,900
Copper and copper ore	21,758	5,003	35,873	9,023	71,657
Apples	22,860	9,170	290	.....	32,320
Wine	10,871	6,357	9,819	11,366	38,413

The following table shows the value, in pounds sterling, of the staple products and manufactures of South Australia exported to the United Kingdom, British possessions, and foreign countries:

United Kingdom	£2,335,377	Java	£88,995
British possessions	498,226	Peru	80,642
Belgium	100,030	Philippine Islands	56
France	356,155	Sumatra	1,768
Germany	136,558	United States	13,261
Holland	1,616	Spain	27,564
Italy	538		

NOT A DUMPING GROUND.

With an estimated population of 275,000 the wealth per capita may be figured at $80, which places South Australia in the first rank of prosperity throughout the world. With these figures before them why should not the American exporters, in the interests of promoting our foreign trade, make additional and extended efforts to lay down goods at Port Adelaide equal or superior in quality to the products imported from other manufacturing countries and at prices that would appeal to importers and consumers? The markets of South Australia are inviting, and it requires only a conscientious application of the business methods that prevail at home to insure a gratifying participation in their development.

It may be said, however, that South Australia is in a position to demand what she wants and to pay for articles required, and any attempt to export goods unsalable at home is predestined to failure. It would be well for American manufacturers to abandon the idea that this part of the world is a fit dumping ground for "goods manufactured for export." The competition is too keen.

BRITISH SALES.

HEAVY INCREASES ILLUSTRATE WHAT FINE MARKETS EXIST.

Consul-General John P. Bray, writing from Melbourne, states that the imports from Great Britain to Australia during the first seven months of 1906 show increases in nearly every article of importance over the corresponding period of 1905. The imports from Great Britain of textiles and apparel under the principal headings for the seven months compare as follows:

Textiles and wearing apparel.		1905.	1906.
Cotton piece goods	yards	83,351,800	98,415,000
Woolens	do	2,706,800	3,812,500
Worsteds	do	4,434,200	5,056,800
Carpets	do	563,200	570,500
Jute piece goods	do	1,784,100	2,767,900
Linen piece goods	do	5,901,000	6,781,300
Silk, broadstuffs	do	101,262	136,041
Haberdashery and millinery		$740,552	$804,175
Apparel, waterproof		$44,957	$31,842
Apparel, other		$1,793,442	$2,223,275

The total of the above for 1906 was $16,317,885, against $13,492,165 for the corresponding period of 1905, an increase of $2,825,720, or nearly 21 per cent.

Shipments of the principal articles of metal goods and machinery from Great Britain to Australia for the seven months compare as follows:

Iron and steel products.		1905.	1906.
Pig iron	tons..	17,919	31,001
Bars, rods, angles, etc	do....	13,472	15,297
Cast iron and manufactures, unenumerated	do....	1,548	1,958
Wrought iron and manufactures, unenumerated	do....	1,916	2,154
Rails	do....	9,563	13,251
Railroad iron and steel, unenumerated	do....	1,408	1,294
Wire and wire manufactures	do....	8,961	11,988
Galvanized iron	do....	28,329	33,316
Tinplates	do....	8,270	9,937
Hoops and strips	do....	1,163	1,564
Tubes, fittings, and pipes	do....	8,523	12,231
Nails, screws, and rivets	do....	1,270	1,876
Bolts and nuts	do....	1,256	1,458
Bedsteads	do....	686	978
Steel ingots, etc	do....	272	340
Steel castings	do....	81	125
Steel bars, angles, etc	do....	4,478	6,630
Steel or steel and iron manufactures, unenumerated	do....	672	1,498
Copper manufactures	do....	490	527
Hardware	cwt..	34,550	42,302
Cutlery		$274,062	$307,845
Locomotives		$76,769	$64,394
Steam engines, agricultural		$59,673	$120,626
Other steam engines		$370,249	$564,266
Agricultural machinery		$73,440	$78,227
Mining machinery		$263,326	$215,450
Other machinery		$1,117,353	$1,466,748

Material increases are shown under such headings as wire and wire manufactures, galvanized iron, and machinery, the increase in machinery for the seven months being $576,179. The aggregate value of metal goods and machinery under the above was $11,451,609 against $8,580,613 for the corresponding period of 1905, or an increase of $2,870,996. The more important of the miscellaneous imports into Australia for the seven months compare as follows:

Articles.	1905.	1906.	Articles.	1905.	1906.
Beer and ale ....barrels..	30,305	35,599	Earthenware....cwt..	82,484	88,044
Salt ....tons..	14,487	9,187	Paper	$136,923	$145,890
Spirits....gallons..	917,525	1,027,581	Bags and sacks ....dozen..	11,509	55,005
Oil (seed) ....tons..	1,992	2,629	Stationery	$323,369	$454,506
Boots and shoes...doz. pairs..	43,250	48,828	Cement....tons..	9,584	9,960
Saddlery and harness	$210,296	$240,599			

The total value of the above 11 articles for the first seven months of 1906 was $5,198,785, against $4,536,712 for the same period of 1905, an increase of $662,093.

The consul-general again calls the attention of American cotton goods manufacturers to the opportunities offered in the Australian trade, nearly 100 million yards of cotton having been imported from England in the first seven months of the year 1906, while from America there was but $312,000 worth imported during the whole of the year 1905.

TRADE MOVEMENTS.

WOOL-SHEARING SEASON WAS LATE.

Consul-General Bray, furthermore, reports that the Australasian wool shipments from July 1 to September 30 were 143,421 bales, a decrease of 115,534 bales, as compared with the corresponding period of 1905. The shearing is about thirty days late, owing to continuous

rains throughout Australia, and it is feared that the wool will not be of so good a quality as last season. It is estimated by the best authorities in Australasia that the total increase in the clip for this season will amount to about 150,000 bales.

OPENING OF WOOL SALES.

The first wool sale of the present season was held at Melbourne on October 16, before a record attendance of buyers. The offerings mainly comprised merino grades, crossbreds being but sparsely represented, and, as is usually the case in the early stage of the season, the offerings of scoured were of little moment. The bidding opened with animation, and this characterized it throughout, the continental buyers securing the bulk of the wool disposed of, American and English buyers also competing well. As compared with last season's opening prices, merino may be quoted on a par. Judging from the offerings the clip is stronger in quality than in 1905, and the fine-haired wool will, therefore, no doubt attract increased attention. Crossbred grades were not in sufficient volume to indicate the price they will bring, but they may be quoted as distinctly firmer than the previous season.

EXPORTS OF FROZEN MEATS TO ENGLAND.

During the first eight months of 1906 the exports of frozen meats from Australasia to England show increases over the corresponding periods of 1904 and 1905, as will be seen from the following comparisons expressed in hundred weight:

From—	Frozen mutton.			Frozen beef.			Frozen rabbits.		
	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.
Australia	58,670	299,009	459,409	33,283	4,185	30,061	105,560	207,619	268,598
New Zealand	1,297,507	1,189,330	1,420,127	114,962	113,491	154,557	20,391	34,521	27,552
Total	1,356,177	1,488,339	1,879,536	148,245	117,676	184,618	125,951	242,140	296,150

TRADE OF VICTORIA WITH MANILA.

The exports of the State of Victoria to the Philippine Islands are largely increasing. During the first nine months of 1906 the total exports amounted in value to nearly $300,000, of which flour, $188,658; oats and compressed hay, $54,605; dairy produce, $29,111, and live stock, $7,172, were the principal items. In addition, a contract has just been entered into for $100,000 worth of sewer pipes of Victorian manufacture, to be delivered in Manila within the next few months.

DUTCH EAST INDIES.

AUSTRALIA SEEKING COMMERCE.

SPLENDID OPENING FOR TRADE IN RICH ISLANDS.

Consul F. W. Goding, of Newcastle, reports that one of the best openings for American trade (one which to a certain extent has been neglected) is the Dutch East Indies.

The Dutch Colony of Java had a population of 28,746,688 in 1900 and an area of 50,554 square miles. Although a tropical country, it has no facilities for cold storage, to supply which a company has been

formed in Australia with a capital of $250,000. This is to promote the export of Australian live stock, frozen meat, pork, butter, etc., as the present supply of meat in Java is quite inadequate—beef being retailed at from 20 to 35 cents per pound. Diseases among native cattle having become prevalent, Java is now more than ever depending on outside sources for its meat supply.

In addition to Java, there are in the Dutch East Indies other islands with a population which, added to that already stated, made up a total of about 36,600,000 in 1900. In 1900 there were in the possessions 75,927 Europeans (principally Dutch), 537,000 Chinese, 27,000 Arabs, and 17,000 other Orientals. Two years ago the natives had 7,173,918 acres of land under cultivation, while 3,519,597 acres more, making up a total of 10,693,515 acres, were tilled by the other classes. Nowhere is the soil put to a more intense use or irrigation more extensively practiced. Owing, however, to the prevalence of disease the breeding of stock is restricted and it is in that direction that Australia hopes to most profitably meet deficiencies. Some items of last year's trade between Australia and Java are: Cattle, $5,935; flour, $467,220; butter, $132,665, and chemicals and manures, $56,935. Although Java is only about 4,000 miles from Newcastle, ten times as much butter is imported from Holland and five times as much from Denmark, but America has captured the leather trade, and a large portion of the trade in flour and tinned goods.

The distributing business is practically in the hands of the Chinese. There is an excellent demand for good butter, cheese, ham and bacon, jam, canned fruits, biscuits, condensed milk, leather belting, compressed fodder, horses for military purposes, and dairy cattle. Small hams weighing from 9 to 10 pounds are preferred. Were the American fruit merchants of the Pacific coast to open negotiations with reliable firms in Java, doubtless a good business could be built up. As the Australians are about to make a great effort to capture and control this trade, merchants of the United States should participate in seeking more commerce in Java.

[In the fiscal year of 1906 the United States imported from the Dutch East Indies—nearly all from Java—$20,575,521 worth of its products, chiefly sugar, and sold to those islands only $1,766,159 worth. The one-sided character of the trade has been the cause of considerable criticism.]

AMERICAS.

SOUTH AMERICA.

ARGENTINA.

COMMERCE AND INDUSTRY—TRADE WITH UNITED STATES.

Mr. F. B. Purdie, general manager of Dun's commercial agency, furnishes the Bureau of Manufactures with a comprehensive review of the developing resources and commerce of Argentina, which reveal rapidly growing prosperity in that South American Republic. Mr. Purdie says in part:

The foreign trade movement of Argentina for 1905, with comparisons for previous years by decade, since 1865, was as follows:

Year.	Population.	Imports.		Exports.	
		Value in gold.	Per capita.	Value in gold.	Per capita.
1905	5,678,197	$205,154,420	$40.1	$322,843,841	$63.2
1895	3,984,911	95,096,438	23.8	120,067,790	30.1
1885	2,880,111	92,221,969	32.0	83,879,100	29.1
1875	2,161,689	57,624,481	26.6	52,009,113	24.5
1865	1,587,101	30,284,305	19.1	26,126,440	16.5

The returns for the first six months of 1906 stand, in gold, imports $117,508,381 and exports $164,766,110. Compared with the same period in 1905, there is an increase of $19,933,406 in imports and a decrease of $11,007,571 in exports. The following table shows the countries from which the bulk of the imports come and the percentage supplied by each:

	1905.		1906 (6 months).	
	Value.	Per cent of total.	Value.	Per cent of total.
United States	$28,920,443	14.1	$17,988,268	15.3
Germany	29,083,027	14.2	17,762,561	15.1
France	21,248,202	10.4	12,695,410	10.8
United Kingdom	68,391,043	33.3	37,605,564	32.0

Classified by principal groups in accordance with the official returns the import and export statistics afford much material for interesting study. The following table shows the more important classifications:

Imports for 1905 and six months of 1906, classified.

	1905.	Six months, 1906.
Live stock	$1,307,808	$1,013,694
Foodstuffs	13,739,650	7,405,030
Tobacco and applications	4,455,408	2,245,522
Wines, spirits, and liquors	9,167,842	5,455,581

Imports for 1905 and six months of 1906, classified—Continued.

	1905.	Six months, 1906.
Textiles:		
Silk goods	$2,602,558	$1,699,451
Wool goods	10,967,262	6,417,833
Cotton goods	27,066,742	15,131,132
Various goods	5,582,389	3,158,009
Total textiles	46,218,951	26,406,425
Lumber and applications:		
Building material		9,390,580
Raw material	11,799,220	[a] 927,422
Made-up goods	2,368,943	1,496,083
Total lumber	14,158,163	11,820,085
Paper and applications:		
Paper and card	2,272,041	1,310,347
Made-up goods	1,861,801	869,851
Total paper	4,133,842	2,180,198
Leather and applications	1,796,844	1,153,449
Hardware and applications:		
Raw material	14,814,571	7,777,867
Iron and steel goods	11,357,714	6,932,408
Total hardware	26,172,285	14,710,275
Oils	5,556,067	2,842,437
Chemicals and drugs	6,275,786	3,305,051
Colors and dyes	1,441,726	654,067
Agricultural appliances	16,532,552	8,560,965
Locomotives	23,362,481	13,544,172
Various metals and applications	5,894,656	3,572,843
Glass, crockery, etc	17,466,903	8,769,912
Electrical goods	2,034,674	1,089,641
Various	5,428,832	2,779,016

[a] No longer classified as in 1905.

Exports for 1905 and six months of 1906, classified.

	1905.	Six months, 1906.
Pastoral products	$141,042,986	$70,517,665
Agricultural products	170,235,235	88,614,482
Forestral products	7,125,382	3,707,222
Mineral products	261,516	150,624
Products of the chase	790,734	353,053
Various	3,388,038	1,523,064

TRADE WITH UNITED STATES.

America has shared in the increase in imports, but this is principally due to agricultural machinery and railroad material. Until better shipping accommodation is provided it is not probable that Argentine trade with the United States will increase to any appreciable extent. As matters are at present, great delay is experienced in discharging steamers with cargoes from the United States. This is due to the fact that these vessels carry kerosene and other inflammable merchandise, and they therefore have to go to special depots to discharge these before they can be allowed in the port. This great delay in obtaining discharge makes merchants chary about placing orders for American goods, unless they are in no hurry for delivery. Putting on more steamers might have some effect in ameliorating this delay, but then the difficulty of a return cargo has

to be faced. Argentina has but little to send to the United States, the principal exports being hides, skins, wool, and quebracho, but these do not go forward in sufficient quantities to warrant any considerable increase in tonnage. If the vessels could fill up at Brazil with coffee, the opportunity might be better, but then it would appear as if the tonnage plying to Brazil is sufficient for all its requirements. There does not seem to be any outlook for increased exports to the States.

Numerous vessels are leaving every week in ballast, as rates are so low and cargo offering so limited that they find no inducement to remain. Some of these steamers are leaving for American ports in ballast in search of a cargo. The current rate of freight for grain is $2.20 to $2.50 per ton from Rosario to a European port, while rates to Brazilian ports are almost double this price. The total shipping arriving in the country is from 5,000,000 to 6,000,000 tons net register, of which about 80 per cent is British.

It stands to reason that the countries which have capital invested in the Republic will do their utmost to obtain all their supplies from their own country. This accounts for the large percentage of Argentine imports which come from England. German capital is coming into the country, principally in electrical enterprises. Belgian and French capital is interested in railways and tramways and other industrial enterprises. On the other hand no American capital is invested. There is ample room for it, however. At the end of 1904 it was estimated that the amount of capital invested in Argentina was $1,586,000,000, of which three-fourths is British.

EXPORT OF NATIONAL PRODUCTS.

Although the cultivated area of land increased from 12,000,000 acres in 1895 to 33,000,000 acres in 1905, yet only about one-tenth of the land fit for cultivation has been used. In addition there are over 245,000,000 acres which can so far be utilized only for stock breeding, and more than 222,000,000 under forests and on mountains containing immense wealth in timber and minerals. From 1891 to 1905 the area under wheat and maize more than doubled, and that under alfalfa more than trebled. The wheat yield for 1905–6 was 3,672,300 metric tons (metric ton 2,204 pounds) from 5,675,300 hectares (hectare 2.471 acres), against 4,202,634 metric tons from 4,903,124 hectares in 1904–5. For 1906–7 there should be an increase in the area of from 5 to 8 per cent. The 1905–6 linseed crop was 591,900 metric tons, and the corn crop 4,000,000 tons approximately.

Other products grown, with areas, for 1905, are: Oats, 51,610 hectares; barley, 58,817; rye, 2,657; canary seed, 21,817; alfalfa, 2,983,643; tobacco, 19,387; sugar cane, 65,747; vineyards, 53,275; cotton, 4,372; peanuts, 29,520; rice, 3,956; coffee, 175; potatoes, 40,265; peas and beans, 24,599; vegetables, 39,636; manioc, 5,346; castor beans, 3,949; fruit trees, 87,269; various, 166,446.

The Argentine exports of dry oxhides in 1905 was 2,136,782, and of salt oxhides 1,662,677, the United States taking 1,233,836 dry and 151,643 salt oxhides. The exports of meats during the past five years have been:

Year.	Carcasses, mutton.	Quarters, beef.	Year.	Carcasses, mutton.	Quarters, beef.
1905	3,468,043	1,933,997	1902	3,429,222	830,213
1904	3,673,778	1,209,998	1901	2,722,727	497,375
1903	3,381,690	996,023			

GERMANY'S NEW TARIFF HURTS ARGENTINA.

The forest industry has been confined to quebracho wood, one of the hardest woods known, useful for railroad ties and the tannin it contains. Until quite recently this wood was exported in logs, but there are now numerous extract factories working in the country, and more money is to be made in exporting it in this form than in logs. In 1905 Argentina exported 16,622 railway ties, 29,408 tons of extract, and 285,897 tons of logs, and for the first six months of this year (1906) 1,400 ties, 15,941 tons of extract, and 142,011 tons of logs. In 1905 Germany took 9,620 tons of extract and 46,145 tons of logs, and the United States 14,868 tons of extract and 38,884 tons of logs, while 187,286 tons of logs were shipped to order. The new German tariff imposes a very heavy duty on the extract and the effect this has had on the trade can be seen from the fact that during the first six months of the year 1906 only 1,677 tons and only 9,270 tons of logs went to Germany. On the other hand, for the same period Argentina sent to the United States 10,050 tons of extract and 14,013 tons of logs. The total value of quebracho exported in 1905 amounted to $7,000,000, gold.

As regards industrial undertakings in any of the large cities, there is always the labor question to be taken into consideration, and it may be safely said that to-day labor holds the upper hand. Strikes are numerous and eight hours is the rule. This labor question, therefore, makes the industrial outlook unsatisfactory, for the larger the enterprise the more liable it is to receive attention from the agitators.

MERCHANDISE IN DEMAND.

LARGE VARIETY OF GOODS NEEDED TO SUPPLY PROSPEROUS NATION.

The British consul at Buenos Aires, who recently addressed the London Chamber of Commerce on British trade with Argentina, spoke as follows in regard to the mercantile needs:

The main wants of the country are: Coal for railways, factories, steamers, and the production of electricity for power and light; agricultural implements and machinery; fencing, carts, tarpaulins, sacks, and farm material; windmill pumps and water troughs for the 20,000,000 head of cattle and 100,000,000 sheep; axes, saws, chains, etc., for lumbering; railway and tramway material; river steamers for maintaining internal communication and transporting the products of the country to the seaports and the centers of consumption; building material of iron, wood, and cement for use in cities and country houses; machinery and explosives for mining on a small scale, and for factories for hats, cotton and woolen goods, soap, shirts, paper, iron foundries and cold storage companies; for drainage and sewer work, soda water, breweries, biscuits and sweets, candles and matches. For the personal use of the 5,000,000 inhabitants of the country are required foodstuffs for Spanish and Italian tastes: Biscuits, tea, general groceries, sauces; drinkables, such as whisky, beer, wine, etc.; furniture, mostly French styles, very decorated; mirrors; also some of the best English outfits for hotels and clubs.

CLOTHING, COMBS, AND HATS.

The clothing required is mostly of southern European styles, but also some of a heavier class for winter wear. For the upper-ten ladies

the most expensive Parisian fashions in frocks and headgear; for the millions all manner of prints and light material and no hats, but an abundant supply of cheap combs. The working women wear no hats or head shawls, but affect a very neat style of hair dressing, which depends largely upon the use of ornamental combs. The rough sex wear black soft felt hats, dark-colored clothes, colored soft shirts or woven vests, and thin boots. The better class men wear the same clothes as the corresponding class in England, but the straw hat is much in vogue, even in cities, for more than half the year.

SPORTING REQUISITES, HOUSEHOLD GOODS, ETC.

There is a small but steadily increasing demand for implements of sport—cricket, tennis, golf, polo, and especially football. For the households all over the country, and especially among the million and a half of city dwellers, are required household ironmongery, glass and crockery, enameled ware (some made in the country), sheath and other knives, razors, all sorts of household and sanitary fittings, baths, electric lifts, gas and electric fittings, oil lamps, and whatever is required for a well-appointed house. There is a fair demand for high-class carriages and a steadily increasing taste for automobiles, but there are no roads outside the cities, which limit their use. Acetylene gas is much used in the country districts.

URUGUAY.

LIMITED EMPLOYMENT OPENINGS.

AMERICANS WITHOUT MONEY SHOULD STAY AWAY.

Consul John W. O'Hara, of Montevideo, wishes to correct an impression prevailing in some parts of the United States that good public land may be had in Uruguay and in the Argentine Republic for the asking, and that special opportunities are open to the young man who is familiar with farm work, and particularly with the care and management of live stock. The consul writes:

This subject has been most forcibly called to my attention within the past few months by the appearance in this city of a number of young men, who come here from the United States without making themselves acquainted with local conditions in this country, in the hope of bettering their circumstances by securing profitable employment or acquiring free public lands, and only realize when their small amount of cash is exhausted that they have been misinformed. Then they find themselves in a strange country, far from home and friends, penniless, and in many instances unable to make themselves understood when they ask for assistance. I have been fortunate enough, up to the present time, to secure employment for these young men at the meager wages of 90 cents per day until such time as they receive assistance from home or are able to work their way to an American port.

There have also been received at this consulate a great many letters requesting information as to "opportunities for settlers to obtain public lands," "the amount of free land each person may obtain," "the wages paid laborers on ranches," etc. Most of these inquiries come from the Western States—nearly all from Texas and California. To all these I would say, do not come to this country unless you are well

supplied with cash or have something absolutely assured before coming. Experience has demonstrated that the raising of live stock is very profitable, because the soil and climatic conditions are alike favorable, but large investments of capital and a certain knowledge of the people are required to obtain the best results. The land must be purchased or rented, as there are no available public lands open to settlement. It is true that the Government claims to be in possession of public lands that will in due time be sold to settlers in small tracts for agricultural purposes, but as yet nothing definite has been arranged.

As to the opportunities for securing employment on the ranches, or estancias, of this country, they are very few, and not at all desirable. In the first place, when employment can be secured, the wages paid for such labor are very low, ranging from $6 to $16 per month. Secondly, the mode of life in the "camp" is very different from that to which the American farm hand or cattle man is accustomed at home. He has none of the comforts of our modern ranchman. Another, and by far the greatest, difficulty that confronts the young American here is the language. The universal language of the ranch is Spanish, and without a fair knowledge of it it is almost impossible to secure employment at any price.

PARAGUAY.

STRENGTH OF FINANCIERS.

ASUNCION BANKERS PLANNING CLOSER RELATIONS WITH NEW YORK.

Consul John N. Ruffin, reporting from Asuncion, says that the Banco Paraguayo, with a capital of $20,000,000, is seriously studying a programme by which direct financial operations can be made between Asuncion and New York, but that this may be a little difficult, taking into consideration that direct exportations from Paraguay are small. Still, in cases of large sums, Mr. Ruffin thinks the difficulty could be overcome by drawing in favor of American bankers on Paris. The consul continues:

The Banco Paraguayo, established over a year ago, has made phenomenal progress. To meet the increasing demands of commerce here they have decided to cover their entire authorized capital, viz, $20,000,000 national currency, and for further facilitation of operations with foreign countries will very soon open a gold-mortgage section, by which those who desire to realize operations on a gold basis can offer real estate as guaranty for loans in gold. This will enable the importers to buy on a more satisfactory condition, because it will make them independent of the fluctuations in the value of paper money, and is a new step which meets with general interest.

The bank's gains last year were $962,648 national currency gross, and expenses, $222,201, leaving a net profit of $739,747 national currency. The duration of the Banco Paraguayo, according to its statutes, will be thirty years. It was founded by the Bank of France of the River Plate, July 1, 1905, and has as its principal shareholders the Bank of France of the River Plate; Pedro Jorba, partner of the largest and strongest importing and exporting house in Paraguay; Guillermo de los Rios, one of the wealthiest cattle raisers in the country; Justino Berthet, largest flour-mill owner; Nicolas Angulo, second largest importer and exporter in the country, and Spanish consul-

general; Hugo Heyn, partner in the largest yerba-maté (tea) company; Felix de los Rios, George N. Casaccia, Victor M. Soler, Florentino Goleri, Christian C. Heisecke, Angel Iribas, Mauricio Barthomier, and Francisco Villaamil, the latter all figuring conspicuously in the commercial, industrial, and manufacturing enterprises in the Republic.

BRAZIL.

RUBBER RETURNS.

EFFORTS FOR PLANTATION METHODS TO SUSTAIN INDUSTRY.

Consul G. E. Anderson makes the following additional report on rubber from Rio Janeiro:

Doctor Augusto Montenegro, governor of Para, in his annual message to the State legislative assembly, takes a position similar to that of the governor of Amazonas as to the future of the Brazilian rubber industry, and the necessity of planting rubber trees and cultivating them as an agricultural enterprise in the great Amazon Valley if the country's rubber industry is to be protected and established upon a firm and lasting basis. Incidentally the governor furnished the latest authoritative figures as to the output of Brazilian rubber. Of the future of the industry Governor Montenegro says:

> Speaking of production, it is my duty to call the attention of rubber workers to the necessity of following the example of other countries, and to transform our merely extractive industry to a trusty agricultural interest. With a soil privileged like ours, the natural home of the hevea, we must remember the future and take care to renew and increase the productive area by plantation. It costs little to assimilate the lessons learned by other countries where the hevea is being planted on a rational and methodic system. * * * A monograph will shortly be published showing the progress made in the British Asiatic colonies in the planting of rubber, and the legitimate hopes of success that these efforts inspire. Before closing this, the second period of my administration, I desire to found an agronomic station at which the planting of seringa rubber will have special attention, as also that of cacao and tobacco.

PROPORTION PURCHASED BY UNITED STATES.

Embodied in the message of the governor is a table showing the amount of rubber produced and shipped abroad in the great Amazon rubber country, including not only the Brazilian ports of Para and Manãos, but the Peruvian port of Iquitos as well. This table shows the total exports July, 1905, to June 1906, inclusive, to be as follows in pounds:

	Fine.	Medium.	Sernamby.	Caucho.	Total.
To Europe:					
Via Iquitos	1,457,911	302,552	1,500,969	1,855,372	5,116,806
Via Manãos	10,201,998	2,070,821	2,400,492	4,475,640	19,149,053
Via Para	11,969,643	1,367,564	3,879,471	2,546,574	19,763,253
Total	23,629,553	3,741,038	7,780,933	8,887,587	44,029,112
To the United States:					
Iquitos	33,066	660	126,772	2,565	163,064
Manãos	6,757,115	1,647,374	2,153,591	2,314,848	12,872,989
Para	6,836,403	1,432,849	9,135,634	882,343	18,287,229
Total	13,626,584	3,080,943	11,415,998	3,197,757	31,323,283
Total to Europe and the United States	37,256,137	6,821,882	19,196,931	12,077,344	75,352,395

It will be noted that of the 75,352,395 pounds sent by the three ports the United States received about 40 per cent. The proportion of the Brazilian rubber crop for 1904 taken by the United States was nearly 60 per cent, American manufacturers taking nearly 6,000,000 pounds more during that year than they did during the fiscal year ending June 30, 1906. Present figures indicate a very material change in the course of Brazil's rubber trade with the United States. The United States not only continues to take a larger quantity of rubber than any other nation, but it continues to take almost as much as all other markets, shipments from other ports being considered.

The gold value of the rubber produced in the State of Para alone in the year ending June 30, 1906, was, according to the governor of the State, $18,117,200. The highest prices were realized in the New York market in September, at $1.28 for fine island rubber, and the lowest in June last, at $1.17 for the same grade. The total exports from the State of Para for the year ending June, 1906, were of a total value of 54,166,505$270, or something like $13,500,000.

BRAZIL NUTS AND CACAO.

There has been a notable increase in the export of Para or Brazil nuts, but a falling off in the export of cacao. There is no reason for this latter, and the government of the State is determined to rehabilitate the industry, if possible, and is to establish an experiment station, is issuing literature upon the subject, and is prepared to offer inducements to those who undertake to improve the condition of the cacao industry. The present depression is said to be due to imperfect planting, noncultivation, lack of fertilization, and unskillful preparation of the beans.

EDUCATORS WANTED.

AMERICAN SCHOOL-TEACHERS AND SCHOOL METHODS.

Consul-General G. E. Anderson writes from Rio de Janeiro that, according to the plans of the authorities immediately concerned, the State of Minas Geraes, Brazil, is to introduce American school-teachers and American school methods, and the change is to be made at once. The authority for this change rests with Dr. Carvalho Britto, minister of the interior for the State, and in respect thereto he says:

"You may state that we have resolved to secure two professors of agriculture, two of manual training, and four normal teachers from the United States to begin work here in Bello Horizonte; that we have not yet decided as to the best means of securing these teachers, but as soon as we have decided we will inform you."

The four normal teachers are to be women. What this change means may be appreciated from the fact that the Brazilian authorities have been working upon educational lines more or less European with Brazilian adaptations ever since the matter of education was taken up by the governments of the several States. These methods have not been found successful, and the change to American methods comes after careful investigation and in obedience to the conviction that such a change is imperative if Brazil is to make the progress in educational lines its statesmen believe it ought to make.

INCREASING AMERICAN INFLUENCE.

The State of Minas Geraes is one of the largest States of the Brazilian Union in point of area and contains about one-fourth of the entire population of the country. It also contains by far the greater portion of the country's mining interests. There is considerable American capital invested in it and it has American leanings otherwise. For instance, an electric-light plant costing $200,000 is being put in at Bello Horizonte, its capital, all the machinery for which comes from the United States. It has been the subject of considerable investigation on the part of American investors, and it unquestionably offers many inducements to foreign capital when conditions in Brazil generally are bettered.

That the leaven of American educational methods and American teaching is to be introduced in it is an event of vast importance to the State and of something more than passing interest to American educational circles. The successful work of American mission schools in the State, several magnificent establishments of which have been erected in the State capital, Bello Horizonte, is undoubtedly responsible, to a great extent at least, for this decision of Brazilian authorities to favor similar methods in the State schools. The mission educators and Brazilian authorities have worked together in harmony in a way that has been of great advantage to both.

The introduction of American educators and American educational methods in the Argentine Republic some years ago resulted in a revolution in that country's educational methods and is held by educators generally to be the beginning of that country's latest period of great national growth and development.

COFFEE LABOR NEEDED.

JAPANESE WORKMEN DESIRED—COFFEE STORAGE TROUBLES.

The need of labor for development in Brazil has led to a strong movement in São Paulo for the importation of a large number of Japanese.

The proposition now favored is to ask the authority of Congress for the introduction of 10,000 Japanese subjects at once. That something in this line will be done seems to be beyond doubt at the present time, and the need of additional labor felt so keenly during the harvesting of the immense coffee crop now being shipped has brought the matter to an acute point. S. Kumabe, a secretary of one of the agricultural boards in Japan, has just gone to São Paulo to investigate the possibilities of rice culture in that State.

The movement of the immense coffee crop of Brazil, especially in São Paulo, has been considerably interfered with both for lack of railroad facilities and for lack of storage room. The government of the State of São Paulo has offered a guaranty of 7 per cent interest to anyone who will construct warehouses for storing the crop. There has been some curtailment of receipts at Santos for lack of storeroom, and in a large number of cases advantageous sales have been lost for lack of room to handle, clean, and mix coffee. On the other hand, some dealers have been forced to sell for similar reasons. The completion of railway connections of similar gauge in the course of a few months will probably enable a better division of the crop shipments in the future and prevent a recurrence of the trouble.

GERMANS INDUCED TO SETTLE.

NEED OF TRADE-MARK TREATIES WITH SOUTH AMERICAN NATIONS.

A correspondent of the Iron Age states that the German Government shows its interest in southern Brazil (Rio Grande) by offering special exemptions from military service to those Germans who go to that part of Brazil. The imports of German iron, steel, and hardware, the correspondent says, are calculated to be over $20,000,000. He also says:

"Paraguay deserves some attention from our business men. Two new lines of steamers have been put on from Montevideo and Buenos Aires to bring down the crops of mate or Paraguay tea, sugar, tobacco, and indigo, and to supply the country, especially Asuncion, with general hardware, building material, flour, etc. The Government has granted a concession to build a railroad from the capital to tap the Matto Grosso line through Brazil to the Atlantic.

"All along the Pacific towns and ports American goods, especially hardware, are more than holding their own. The people are gradually learning to distinguish our goods from Belgian and other imitations. There never will be a better time than the present to agitate the adoption of a trade-mark law between the United States and all the Spanish-American republics. These countries are flooded with counterfeits from Europe purporting to be American rifles, revolvers, plows, axes, bicycles, and machines of all kinds. A treaty on trade-marks between the United States and these countries will mean millions in the pockets of our manufacturers."

CHILE.

COMMERCE OF IQUIQUE.

NITRATE OF SODA SUSTAINS PROSPERITY AT CHILEAN PORT.

Consul C. S. Winans reports that the foreign commerce of the consular district of Iquique, Chile, both imports and exports, showed a remarkable increase during 1905.

The imports amounted to $19,479,696, an increase of $7,268,599, and the exports $72,267,353, an advance of $11,317,183 over 1904. There are no statistics available showing what portion of the imports came from the United States, but it is estimated that $3,000,000 will cover the values.

The increase in the imports is due largely to the great number of nitrate-producing establishments. These plants call for boilers, iron and steel tubing, iron plates for tanks, dump cars, and portable railways, small stationary engines, building material, and coal. Most of these establishments are lighted with electricity, which necessitates the importation of considerable electrical machinery and supplies. The values of the different classes of merchandise imported into the district were: Animal products, worth $442,451; arms, ammunition, etc., $384,180; liquors and mineral waters, $332,354; machinery and tools, $3,292,283; mineral products, $3,763,063; oil, paints, and coal, $7,058,030; paper, $159,354; chemicals, etc., $136,767, and sundries, $63,953.

The principal exports consisted of borax, valued at $953,142; copper ores, $693,404, and nitrate of soda, $67,314,977.

The exports to the United States amounted to $17,776,517, an increase of $4,716,399 over 1904. The leading articles were: Nitrate of soda, valued at $15,112,909; iodine, $1,893,583, and silver ore, $592,069.

The total amount of nitrate of soda produced in the Iquique district in 1905 was 1,902,578 tons, an increase of 202,909 tons over 1904. The exports amounted to 1,793,707 tons.

At the beginning of 1905 there were in operation 113 nitrate plants, with an estimated producing capacity of 2,896,450 tons annually, and there were in process of construction 19 new plants, with a producing capacity of 950,000 tons a year. Practically the world's production of this mineral is manufactured in and exported from this district. It is controlled by a combine in which all the manufacturers agree to limit their production to a certain amount, according to the capacity of their plants. During the present fiscal year ending March 31, 1907, the production and exportation is to be limited to 2,175,000 tons. The combine not only controls the output and exportation, but sends experts in the use of nitrate to different parts of the world to study conditions and to extend the sales. It appears that the best results of this propaganda have been in the United States, as the total increase in the exportation of nitrate throughout the world from 1901 to 1905 was 211,514 tons, while the increase to the United States was 141,101 tons.

FOREIGN COMMERCE.

LARGE INCREASE DURING 1906.

Consul Alfred A. Winslow, of Valparaiso, reports that the foreign commerce of that Republic shows a big increase for the first ten months of the year 1906, as shown by customs returns made by the director of customs.

The total customs receipts for the period was 80,643,145 pesos, equal to $24,192,943 United States gold, against pesos 73,105,159, or $21,931,547 United States gold, for 1905, a gain of $2,261,396. For the month of October the receipts were 11,960,012 pesos, or $3,586,003 United States gold, against 10,426,198 pesos, or $3,127,859, for 1905, a gain of $458,144, one-half of which was at the port of Valparaiso.

INTERNATIONAL NITRATE TRUST.

There was lately organized in London a company known as the Nitrate Securities Trust, that has for its object the regulation of the nitrate production of the world, so it is thought. Its capital stock is only $1,000,000, but the backers are among the leading nitrate people. It is thought in Chile it has had much to do with the advanced prices so far.

BOLIVIA.

DIVISION OF COUNTRY'S FOREIGN COMMERCE.

Consul Alfred A. Winslow, of Valparaiso, reports that according to the report of the minister of foreign relations of Bolivia, the foreign commerce of that country amounted to $33,439,430 for 1905, against

$25,249,376 for 1904, a gain of $8,190,466. Of this $13,377,380 was imports, and $20,062,050 exports for 1905. The countries from which the imports came rank as follows: Germany, Great Britain, Chile, Peru, United States, Argentina, France, Italy, Belgium, and Spain.

The exports showed a gain of $4,958,837 and were classified as follows: Tin, $12,578,468; rubber, $3,516,517; silver, $1,849,205; copper, $1,186,842; bismuth, $742,978; gold, $19,776; various other, $188,268. Nearly all the foreign commerce of the Republic of Bolivia is carried on through Chilean ports, the greater portion of this being through the ports of Arica and Antofagasta. The Bolivian transit exports alone for these two ports for 1905 amounted to $7,663,958.

COLOMBIA.

METHODS TO RESTRICT LEPROSY.

Consul P. P. Demers, of Barranquilla, believes that a recent report to the Colombian Government from Dr. Julio Manrique, chief physician of the national lazarets, may interest American scientists.

The number of lepers in Colombia, according to the census taken upon different occasions, has never exceeded 4,000, the greatest part of which is now isolated in Cana de Loro, Agua de Dios, and Contratacion. Leprosy in Colombia, as elsewhere, attacks by preference the destitute element. Cases are rarely found among the classes living with hygienic care. The percentage of lepers with relation to the total population of Colombia is 1 per 1,000, which is less than in any other tropical country. Doctor Sauton, a celebrated expert and author of a treatise on leprosy, upon visiting the Department of Cauca, found that less than one-fourth of the reputed cases of leprosy which he examined there were genuine, the balance being syphilitic. The sick which are sent to lazarets are first examined by expert clinical physicians whose diagnoses are proved by bacteriological examination.

WEST INDIES.

MARTINIQUE.

COMMERCIAL OUTLOOK NOT ENCOURAGING.

Consul Chester W. Martin reports the island of Martinique as not prosperous. He says it has not recovered from the depression caused by the great volcanic eruption that recently overwhelmed the most important parts of the island. He writes:

The present low price for sugar, the principal product for export, makes the cultivation of sugar cane unprofitable. Rum is manufactured in large quantities and is second in the list of exports. Cocoa is grown to some extent; but the exports do not seem to be increasing. I find that the imports from the United States are falling off in some lines, and not increasing enough in others to maintain the maximum total. The imports of flour were 29 per cent less than in 1904; rice 30 per cent less; corn 13 per cent less. Cotton seed and kerosene oil

show a small increase. Lard, beef, pork, butter, and oleomargarine show an increase, while lumber shows a falling off of nearly one million, because of business depression. None was imported from other countries. I look for a decided falling off in meat importations, for a short period at least, on account of the attacks made by one of the Fort de France newspapers on American meats, based upon the articles published in American newspapers during the so-called "meat scandal." Shipping facilities from New York are good. The Quebec Steamship Company operates the only regular line of boats between this island and the United States, giving fortnightly service at low rates.

The total imports during 1905 amounted to $2,869,502, of which the more important articles were: Dry goods, $323,336, of which France furnished $309,000 worth; coal, coal oil, etc., $337,216, of which the United States furnished $272,716 worth; chemicals, fertilizers, etc., $274,551, in which the United States led with $101,807; breadstuffs, $468,069, of which the United States supplied $236,940 worth; fish, $139,325; meats, $148,852. The total trade of the island is not large, but is part of a trade the bulk of which should always be carried on with the United States. Added to the trade of other islands south of Martinique it helps to swell the total to fairly large proportions.

CUBA.

IMPORTS AND EXPORTS OF CIENFUEGOS.

Consul Max J. Baehr furnishes a detailed statement showing imports and exports at the port of Cienfuegos, Cuba, during the fiscal year 1905–6. The total trade amounted to $20,262,849, imports $7,432,827, exports $12,830,022. The imports from the principal countries were as follows:

United States	$2,928,635	Colombia	$687,278
England	1,093,852	Uruguay	426,959
Spain	688,806	Germany	418,832

The principal articles imported from the United Stated were: Machinery, breadstuffs, provisions, coal, lumber, oils, shoes, barbed wire, and cement. The most remarkable increase in importation over 1905 is that of American shoes, from $51,363 in 1905 to $128,178 in 1906, or 125 per cent.

The most notable decrease is in American rice. Its price compared with that for the Indian article is so high as to eliminate it from this market altogether, especially since the native prefers the Indian to the American rice. In 1905 Cienfuegos imported $168,804 worth of American rice, and during the fiscal year 1906 not one pound entered this harbor from the United States.

Of the $12,830,022 exports $12,738,892 went to the United States, $57,249 to England, and $33,881 to Germany. It will thus be seen that while the United States took practically all the exports of this market, it received less than 40 per cent of its trade; wh le England, Spain, and Germany, without taking anything from them, so to speak, were favored with 14, 9, and 6 per cent, respectively.

The imports from Colombia were cattle solely, and those from Uruguay "jerked beef" only.

CENTRAL AMERICA.

NICARAGUA.

REPUBLIC'S IMPORTS AND EXPORTS—COFFEE SHIPMENTS.

Vice-Consul A. O. Walker, of Managua, reports on the foreign trade of Nicaragua as follows:

The total exports from the several ports of Nicaragua during the last six months of 1905 amounted to $1,074,939, of which the United States took articles valued at $769,723; France, $101,236; England, $86,457; Germany, $51,212; Italy, $15,976; the Netherlands, $15,768, and other countries the remainder. The imports into Nicaragua for the same period amounted to $1,687,913, distributed among the leading countries as follows: United States, $952,211; England, $336,394; Germany, $214,360, and France, $121,503.

The exports, exclusive of coffee, from Corinto and San Juan del Sur during the last six months of 1905 amounted to $243,504; for the previous six months, $343,375. The imports into the same ports for the same period were valued at $1,179,935, and for the preceding six months the amount was $1,259,750. The exports of coffee from these two ports for the last six months of 1905 amounted to $228,589, of which the United States took $20,711 worth; France, $98,312; Germany, $49,491; England, $15,618; Italy, $15,178; the Netherlands, $15,769, and Chile and Austria the remainder.

The imports into Corinto and San Juan del Sur from the United States during the last six months of 1905 amounted to $521,403, of which the ten principal articles are shown in the following statement:

Article.	Value.	Article.	Value.
Cotton goods, etc	$99,197	Oil, all kinds	$21,496
Drugs, etc	15,278	Paper	8,681
Flour	101,611	Provisions	21,987
Iron and steel manufactures	90,833	Rice	46,452
Leather and leather goods	15,159	Silk goods	14,080

The exports from the same ports to the United States for the six months amounted to $139,665. The principal articles were: Hides, valued at $44,013; rubber, $57,649; and deer skins, $25,641.

MEXICO.

BUSINESS AT TAMPICO.

GOOD STEAMSHIP CONNECTIONS WITH UNITED STATES PORTS.

Consul S. E. Magill reports that the year 1905 was for Tampico one of freedom from contagious and other diseases, of steady prosperity and growth in exports, imports, tonnage of shipping, and in population in that Mexican city. He continues:

The numerous colonies of American farmers which were established in this vicinity are prospering or deteriorating according to the management of the enterprise and the industry of the individuals composing

the colonies. Price of lands has materially advanced, and the signs of large influx of settlers during the fall of 1906 are noted. Prospective purchasers of lands in this vicinity must exercise care in selecting reliable agents through whom to deal, and no one should purchase land until he has made a personal investigation thereof.

Corn, cattle, sugar cane, vegetables, and fruits are easily produced here, and hides, skins, honey, beeswax, dyewood, hair, and chicle form the chief local products for export. Alcohol, bananas, grape fruit, and pineapples find a ready market in Mexico at satisfactory prices. Tomatoes, lemons, and pineapples are securing a market in Texas and other near-by American points. Thousands of cattle have been shipped from this district to Cuba during the past years, and the demand from Yucatan for cattle, corn, lard, etc., is regular and large.

Tamaulipas is believed to contain great mineral wealth, but little exploration has been done. Copper, zinc, and coal are known to exist, and some day will be extensively mined.

The proposed short line from Mexico City to Tampico has made little progress, no track work having yet been begun. The Mexican Central Railway is perfecting its two branches into Tampico, ballasting, putting in heavier steel rails, and masonry and steel bridges in place of wood.

EXCELLENT SHIPPING FACILITIES.

No new steamship lines were added during 1905, but tonnage of vessels and freight increased materially. The Mexican American Steamship Company, connecting Mexican with United States Gulf ports, put on two steamers to make weekly trips between Tampico and Texas ports, giving splendid opportunity for merchants, manufacturers, and commission men of the West and Middle West to compete through Texas ports for Mexican business with those of the East through New York.

Since early in 1905 the customs regulations of this port have been so modified and interpreted that the dispatch of all classes of merchandise through the local custom-house has been greatly facilitated, and the discharge and loading of vessels greatly hastened. New docks for the shipment of argentiferous lead, the product of the smelters of the Republic, were commenced in 1905 by the Mexican Central Railway Company, and at the date of this writing are in continual use.

Within the past six years the number of launches has increased from one or two to about forty, and for the peculiar needs of a river port with 7 miles of water frontage they are now indispensable. Without exception all were made in the United States. As plantations are opened along the Pánuco and Tamesi rivers these handy craft will be in greater demand than ever, for without them only the old dug-out canoe is available.

From July 1 to December 31, 1905, there were 153,591 gross tons of coal and 78,479 gross tons of coke received at this port. All of the coal was mined in the United States, and of the coke 72,217 tons were American, 3,000 tons German, and 3,262 tons English.

OIL RESOURCES.

MANY BORINGS MADE—ONE GOOD FIELD DEVELOPED.

To the question, Is there oil in Mexico? Consul Magill further writes that the answer can now be in the affirmative. As to quality

and quantity, the answer must be still uncertain, authorities and experts differing materially. Mr. Magill continues:

In 1901 attention was called to the explorations of California oil men in this vicinity, and in 1902 the statement was made that oil had been discovered 40 miles west of Tampico. Again in 1904 the subject was treated in a dispatch from this consulate. From the history of oil discoveries in the United States it was reasonable to assume that excitement would follow its discovery here, with consequent rapid development of oil-bearing territory and a determination of its character and extent. Such has not been the case by any means.

The original discoverers sank numerous wells, but before making known their discovery they secured for themselves nearly all the salable land for miles around, thus effectually preventing others from exploring in the immediate vicinity. Leasing lands believed to be oil-bearing is a business new to Mexico, and is entered upon by local land owners with reluctance. Perhaps other reasons, such as the length of time usually required to make land transfers in Mexico, operated to prevent any such rapid development as would have followed the discovery of oil in any part of the United States. Chicago and Pittsburg capitalists secured several lots of possible oil land north of Tampico, and leased a large tract near the American border in the State of Coahuila, which last was explored without satisfactory result. Other explorations have followed near the border by other interests, but so far as known without success.

CLASH BETWEEN AMERICAN AND BRITISH EXPLORERS.

Pennsylvania capitalists secured by lease large tracts to the south of Tampico along Laguna de Tamiahua and, surmounting great difficulties in getting drilling materials to their land, they explored one section of their property to a depth of about 1,200 feet without finding oil. They have moved to another section in the same vicinity and are now drilling there. That oil exists near the Laguna seems undoubted, as it is often seen on the surface thereof, and the frequent asphalt deposits along its shores add further proof.

Explorations have been carried on for some years by English capitalists in the vicinity of Tuxpan, Veracruz, but so far without other results than to induce continued explorations in that section by Americans and another English company, and in two clashes of interest between rival exploring companies the law has been invoked to decide rights whose prospective value is deemed great. Eastern American capitalists are exploring near Papantla, Veracruz. There are unconfirmed reports of their success. In the extreme southern part of the State of Veracruz Pearson & Sons are said to have discovered a grade of oil superior to that produced near Tampico, and have made extensive preparations to store and refine the same, as well as to push further explorations, but no reliable reports are at hand as to quantity of oil obtained by them or promise thereof.

PRACTICAL RESULTS.

The owners of the original wells at Ebano, near Tampico, went on developing their property until they showed a sufficient production to justify the Mexican Central Railway Company making a contract for

about 1,500 barrels per day and to alter a large number of engines from coal to oil burners to consume it. This oil is now being delivered and the railway is erecting large storage tanks to receive it.

Shallow wells, giving out a good quality of oil, have been discovered around Mexico City, but the flow has been exceedingly limited and explorations are not now being made in that vicinity. In the State of Oaxaca and at points on the Isthmus of Tehauntepec oil has been discovered and of a high grade, but the owners of these wells are concealing the quantity and other interests claim that the wells are shallow and of no permanent value.

Outside of the Tampico district a profitable oil field has not yet been developed in Mexico, but it would be unjust to say such may not be at any time the case, for energetic and capable men and companies are exploring in Coahuila, near the border, in Tamaulipas, Veracruz, Oaxaca, and Jalisco, and a strike may be made any day which will open up another paying field and give Mexico what it greatly needs, i. e., a fuel and illuminant which it is not necessary to import.

PACIFIC COAST RESOURCES.

COUNTRY HAS MANY LATENT MATERIALS AWAITING USE.

Mr. Philip Carroll makes his first commercial report as consul at Manzanillo on the many natural resources of the Pacific coast region of Mexico, writing:

The wood of the mangrove tree, which grows in great abundance in the swamps along the Pacific coast of Mexico, contains a large percentage of tannin of superior quality, which, in my judgment, it would pay to extract. Wild limes of delicious flavor grow abundantly around Manzanillo, and in view of the immense supply the establishment of a plant to extract the juice and citric acid would render lucrative returns. Pineapples, mangoes, and other fruits abound in this vicinity, and the canning of these fruits would be a good paying industry. Sardines and mackerel of all kinds abound along the coast and an establishment to can these fish would be a good paying concern.

Manzanillo has been at a standstill for centuries, without a single industry, but now, in view of the near completion of the Mexican Central Railroad and the projection of others, connecting it with other parts of the world, it is on the eve of great prosperity and growth. In view of the bright prospects, property has advanced twentyfold within the last year and is still on the upward move. There is not a hotel or boarding house in the town suitable for travelers, and in view of the probable influx of strangers in the near future a good hotel, it is thought, would be a paying undertaking.

WILD FIBER PLANTS.

There are various plants in the vicinity of Manzanillo which, if developed or cultivated, would yield large quantities of fibers for various purposes. The wild pineapple plant, known as the "chocohurstle" or "guamero" plant, for instance, yields a fiber as fine as silk, and the supply of this plant is practically unlimited, as in growing it reproduces itself in from six to eight months after having been denuded. Cloth made of this fiber is said to be as fine as pongee silk,

and some has been made by hand at Colima, the capital of the State of that name, and a short distance from this place.

The "coquito" palm is another source of a fiber of a coarse substance suitable for the manufacture of bags, matting, and rope. Like the wild pineapple plant, there is apparently no limit to the supply of this fiber-yielding plant, from whose leaves, which are 15 to 25 feet long, the fiber is yielded.

Another plant, growing as high as 4 feet, known as the "escobillo," which is said to be the wild ramie plant, after being cut reproduces itself in about six months. The fiber of this plant is extremely fine, like ramie.

Besides the plants named, there are numerous others in this part of the country which would yield fibers of great value, to extract which it only requires persons of experience and capital in order to establish a large and lucrative industry.

GULF OF CALIFORNIA PORTS.

OBSTACLES TO AMERICAN TRADE ON MEXICAN WEST COAST.

Consul G. B. McGoogan, of La Paz, advises that one of the chief obstacles to American trade in Lower California, is the long time taken in transportation, concerning which he writes:

The average time in which goods are received in La Paz from Chicago or St. Louis is three months, and I am told that an organ was six months in transit from Boston to Culiacan, Sinaloa, Mexico. It generally takes one month for goods to reach Guaymas from Nogales. Sailing vessels make the trip from Hamburg, Germany, to Mazatlan or Guaymas in about five months, and deliver goods at a much cheaper freight than can be secured from the States.

The claim is also made that goods from Europe are better packed for protection of articles and economy of space, the latter giving the dealer better steamship freight rates.

Dealers say that on account of poor packing and careless handling of furniture imported by railroad from the United States a carpenter and glue pot were always necessary on unpacking the goods, while importations from Europe were received in good condition. Prompt delivery and more attention to the details of shipping are necessary to increase our trade to Gulf of California ports.

INCREASE IN COMMERCE.

The preliminary returns of the foreign trade of Mexico for the fiscal year ended June 30, 1906, have been reported on by the British minister at Mexico City, which the London Financial Times summarizes as follows:

The imports amounted to $107,397,000, as against $87,597,000 in the preceding period, or an increase of nearly 24 per cent. The chief features of the import trade are the great advance in minerals and the great expansion of America's proportion of business. Both are attributable to one cause—the exceptional shipments of gold coins minted in Philadelphia needed for the establishment of the gold standard. Even allowing for these bullion consignments the United States' share in the import trade is, naturally, still the largest, and following come Germany, Great Britain, and France. Between ourselves and Germany there is only a difference of $228,700, but it is regrettable that during the past year we have had to rank below our energetic rival. The exports amounted to $131,950,000, as compared with $101,476,000,

or an increase of over 30 per cent, this enormous gain being also due to shipments of precious metals, mainly of silver, to counterbalance the gold imports. These bullion exports represent 58 per cent of the total. If the traffic in bullion, etc., be excluded it will be found that, roughly speaking, Mexican trade has been marking time during the period under review.

CANADA.

HEAVY IMPORTS.

FARMERS ASK FOR ELIMINATION OF PROTECTION FROM TARIFF.

Consul F. D. Hale forwards from Coaticook a Canadian newspaper summary of the late foreign trade of the Dominion, as follows:

The figures of the import and export trade for the first four months of the fiscal year, which began July 1, 1906, have been given out at Ottawa. They show increases in both imports and exports. The figures of the imports, however, largely exceed those of the exports. Compared with the corresponding period of 1905, the imports have increased by $18,972,000, and were this year $111,871,358. The increase in the exports of domestic produce was $6,100,000, making the total $88,818,114.

During the month of October alone the imports amounted to $24,688,244, as against $23,992,056 for the same four weeks of 1905. The exports amounted to $26,880,090, a decrease of $2,212,609, compared with the same month of last year. This decrease is mainly accounted for by the falling off in mining and agricultural products.

The figures for the four months are as follows:

Imports.	1905.	1906.
Dutiable goods	$56,117,002	$65,744,480
Free goods	32,893,637	41,784,332
Coin and bullion	3,889,032	4,342,546
Total	92,899,671	111,871,358
Duty collected	15,205,752	17,275,434

Exports.	1905.	1906.
Minerals	$12,469,806	$11,775,243
Fisheries	5,364,687	3,806,029
Forest produce	14,894,723	19,842,391
Animal produce	29,769,338	33,295,865
Agriculture	13,075,008	12,398,440
Manufactures	7,121,769	7,604,388
Miscellaneous	22,857	95,758
Total	82,718,288	88,818,114

The increase in customs collections of $2,069,682 is unusually large.

The Dominion Grange, the Ontario Farmers' Association, and the Manitoba Grain Growers' Association have united in "a demand that the protective principle be wholly eliminated from the tariff," and state that they "will, if this position is adopted by the Government, gladly assent to the entire abolition of the whole list of duties on agricultural imports."

NOVA SCOTIA MERCHANTS.

STATE THEIR VIEWS ON BRITISH, AMERICAN, AND GERMAN GOODS—STEEL MILL TROUBLE.

Consul George N. West, of Sydney, quotes a number of trade statements made by merchants of Nova Scotia, at a recent meeting of the Sydney Board of Trade, to meet the special commissioner from London.

One merchant complained that the English manufacturers gave but little attention to the requirements of the Canadian mantle trade, and that the style and finish were not equal to that of either German or the United States garments. The Germans copied the styles from the American designers, but the British makers retained the old English designs in vogue many years ago. If conditions were altered in this respect, much more extensive business would be done with the ready-made clothing manufacturers of the United Kingdom. He suggested the employment of New York cutters by the English concerns.

Another stated that British hardware was purchased mostly through Canadian jobbers. There is very little, if any, disadvantage in dealing through this medium. The hardware trade with the United States and Germany was steadily increasing. The English firms were too conservative in the manufacture of different articles and do not adopt new ideas like their competitors. The British package did not have the appearance or finish of the United States or German product. The quality was about the same. The English packages are not put up as well as either those of the German or United States makers; the American goods, particularly, excelled in this respect. Both the box and the wrapping paper of the British packages were poor material and very easily broken. English goods for shipment were better cased than any other. The foreign packages (American and German) were more attractively made up and labeled, but the British small packages were improving, though these even were not yet up to the mark. The retail trade bought the iron and steel house-hardware almost exclusively from Canadian and United States manufacturers, but the English brass goods were preferred to any other of this class, the quality being better even than the Belgian or German. Dealers would rather pay 10 per cent more and get the British brass hardware.

Another merchant submitted that in fancy groceries the British houses did not put up their goods as attractively as the Canadian or American. He believed an advantage could be gained by the English manufacturers in quoting a delivered price on their goods. Shipments came much cheaper by way of Montreal than by Halifax.

NEW BRUNSWICK'S NEEDS.

INTENSIVE HOME LIFE MAKES GOOD MARKET FOR SILVERWARE, ETC.

Consul Gebhard Willrich, writing from St. John, New Brunswick, on the aspects of the trade in electro-hollow plated ware and other silver novelties, says that amusement companies seldom come that way, with the following results:

The people here create their own entertainments, moreover developing a tendency toward home life, bringing with it the inclination to

spend their surplus wealth or earnings on things that go to make home more comfortable and beautiful. Thus one is not surprised to find windows, often of lowly homes, adorned by lace curtains and good paintings, etchings and statuary in houses whose exterior would hardly suggest their presence there. The same tendency has naturally developed a taste here for household articles that may be classed both as ornamental as well as useful, in which category may be placed solid as well as plated silverware, which is sold to all classes of the population in large quantities.

The articles needed most for everyday use are those most largely purchased, such as casters in small sizes, cake baskets, fern dishes, fruit bowls, butter dishes, tea sets, trays, shaving sets, napkin rings. pitchers, waiters, and all sorts of novelties.

The principal brands are of American and Canadian make, but a small quantity of English and practically none of German or French make being sold in this market. The relative percentage of such sales, as to their origin, is said to be about 70 per cent American, 20 per cent Canadian, and 10 per cent English. The American plate is said not to be at a serious disadvantage by reason of the import duty because the American manufacturers of these goods, having been able to undersell their Canadian competitors in the past prior to the imposition of the duty, ranging from 30 to 35 per cent, are still able to hold their own despite such duty, first, because by reason of a greater output they are enabled to manufacture cheaper, hence sell cheaper; secondly, because the American styles of these goods are liked better and insure a continuous demand, irrespective of the price. These styles, being protected by law against imitation, to a large degree have preserved American goods of this class from a more serious competition on the part of Canadian and English manufacturers.

TRADE OF CORNWALL.

Consul J. E. Hamilton furnishes the trade statistics of Cornwall, Canada, for the fiscal year 1906, as follows:

There are more than 100 industries in the Cornwall district, representing a capital of $4,500,000, employing 2,800 persons who receive $850,000 annually in wages. During the fiscal year there were received and sent out from Cornwall 12,500 loaded cars, and $100,000 worth of railroad and steamboat tickets were sold. There are 20 lines of steamers plying between Cornwall and Montreal, five daily; also a daily line to Toronto, Kingston, and two or three other points, and besides triweekly lines to all lake ports. The foreign trade of the district for the fiscal year 1906 is shown in the following table:

Countries.	Cornwall.		Morrisburg.	
	Imports.	Exports.	Imports.	Exports.
United States	$878,602	$309,923	$43,696	$14,492
United Kingdom	62,295	49,828	2,972	.....
Other countries	35,060	118	172	.....
Total	975,957	359,869	46,840	14,492

EUROPE.

REPUBLIC OF FRANCE.

SKILLFUL INDUSTRIAL ART.

HOW A SMALL NATION CONTINUES AS A GREAT WEALTH PRODUCER.

Consul-General Frank H. Mason, in the following letter from Paris, discusses the underlying reasons why France excels in the production and sale abroad of such a wide range of manufactured goods:

In a recent article in an American magazine attention was called to the fact that the successes of American exporters in gaining a foothold in foreign competitive markets have been hitherto confined almost exclusively to two classes of exports: (1) Food products and raw materials, and (2) manufactured goods in which cheapness and not superior quality has been the determining factor. "So far as I remember," says this writer, "I have never found in a European shop half a dozen articles of American manufacture that were offered because they were superior to similar articles of European manufacture." It may be worth while to consider briefly to what extent this is true; what are the more obvious causes that underlie the alleged facts and conditions, and how far they may be overcome or modified by proper education and more intelligent management.

WHEREIN AMERICA LEADS.

The manufactured articles of American origin which have won their way into European markets by sheer force of superior quality are mainly included in the following list:

1. Machine tools. There is nothing made in Great Britain or continental Europe that surpasses in quality of material or equals in consummate workmanship and ingenuity of construction the high-class automatic machine tools of the best American makers.

2. The same is true of typewriting machines, an American invention which has been imitated and copied in most European countries with one uniform result. Cheaper typewriters, more or less efficient, have been produced abroad, but the really high-class machines, perfectly adjusted, balanced, adapted to their work, and good for many years of constant service, are still imported from the United States into European countries and sold in large numbers at stiffly maintained prices because they are made nowhere else.

3. Agricultural machinery, mowers, reapers, and cultivators, also implements like spades, shovels, hoes, and pitchforks of American manufacture, dominate and have held thus far the principal foreign markets through sheer superiority in quality, combined with cheapness and ingenious adaptation to their purpose.

4. The American sewing machine, which invaded continental Europe more than a generation ago, still holds its own bravely against local

competition by virtue of excellence in quality, and it certainly will be remembered that high-grade American-made bicycles, when they entered the European market about 1895, embodied a standard of lightness and perfection of workmanship which had not then been attained abroad.

5. The American factory-made shoe, when it invaded Europe, did so because it was distinctly superior in form, finish, durability, and comfort for the wearer to anything of the same class with which it had to compete. European shoe manufacturers promptly recognized this, and not only equipped their factories with American machinery, but imported American foremen, and in many cases shoes to serve as models and inspiration to their workmen.

6. In the large and important class of fine hardware—locks, hinges, and various fittings for house construction—the best American-made goods are distinctly superior, although their higher cost has to some extent limited their success in the European field.

7. The silverware of the leading American manufacturers is sold in Paris and other European capitals side by side with the choicest work of native silversmiths. The American machine-made watch and various mechanics' tools are equal, if not superior, in quality to the best products of the same classes that are turned out in any other country.

SYSTEMATIZED CHEAPER PRODUCTION.

But with this brief list the American claim of precedence in quality is practically ended. All the cited articles of American industry largely belong to the class of products turned out in large quantities, mainly by the use of ingenious and highly effective machinery, working upon materials which the natural resources of the country supply in abundance, and operated by working people who, by doing one thing continuously day by day and year by year, have learned to do it marvelously quickly, cheaply, and well. Under this system of specialization there has grown up in our country a multitude of automatic workmen who, for the kinds of subdivided work in which they have been trained, are incomparably efficient.

This is all very well so far as it goes, but there is a whole realm of production in the higher and more artistic forms of manufacture which machinery and automatic workmen do not reach. For all this—the products of skilled handicraft into which has been wrought some of the personal genius and character of the workmen—we are still almost wholly dependent upon European countries, and especially France.

THE LESSON TO BE LEARNED FROM FRANCE.

It is at this period in national development, when the American demand for the highest products of skilled and artistic workmanship has become insistent and all but insatiable, that it is timely and interesting to ask what lessons France has to teach the United States, especially in the direction of industrial art encouragement and education.

It is well known that, notwithstanding limited natural resources in respect to coal, iron, and other metals, with not a pound of cotton or petroleum produced within her borders, with a stationary population and heavy burdens of public debt and national defense, France is one of the most prosperous of nations. Paris, gorged with money, has

become the banker of continental Europe. The underlying sources of this prosperity can be summed up in a sentence, namely, a genial climate, a soil naturally fertile and kept to the highest point of production by intelligent, intensive cultivation; industry and frugality of living on the part of the working classes, and, above all, the instinct of artistic taste, fostered and developed by education and governmental influence, until it has become a national attribute.

It is this which enables French ateliers and workshops to turn out the choice products which defy the tariff walls of other nations and make Paris the Mecca, not onlyof a vast multitude of cultivated amateurs, but of the merchants from foreign countries who deal in the choicest and most valuable forms of merchandise.

France is industrially prosperous because she commands the rarest and surest of assets—the æsthetic taste which creates models and standards for other peoples, and the consummate handicraft which multiplies in the product ten, twenty, or a hundred times the value of the material of which it is composed.

WHAT ALL THIS MEANS TO AMERICA.

The relation of all this to the economic interests of the United States is becoming year by year a subject of more commanding importance. It is closely estimated that between 300,000 and 310,000 Americans have visited Europe during the present year, and of this vast number more than half have included Paris in their itinerary. From June until November they have filled the hotels, the shops, and the great department stores of the French capital, an eager, acquisitive throng, whose patronage has gone far toward giving the city its season of overflowing prosperity. The declared exports of merchandise to the United States from the consular district of Paris alone rose from $36,624,475 during the fiscal year 1904 to $52,037,683 during the fiscal year 1906, but this sum, great as it was, took no account of the many additional millions expended here for objects of art and taste that were carried home by returning Americans as personal effects.

The total declared exports of merchandise from France to the United States during the same year amounted to $107,240,548, an increase of $18,823,473 over those of the preceding year. Fully 80 per cent of all these exports were manufactured goods of high quality, in the creation of which skilled labor, combined with trained artistic taste, formed the dominant element in the cost of production.

France, on the other hand, imports from the United States annually from $90,200,000 to $107,000,000 of merchandise (including that which is reexported to Switzerland and elsewhere), mostly raw materials, which are indispensable to her manufactures, food products, which she must buy somewhere abroad, and high class machinery and tools which are used for the improvement of her various industries. More than half of the entire imports from the United States is raw cotton, and the rest are made up mainly of mineral oils, copper, raw tobacco, lumber, cotton-seed oil, breadstuffs, crude rubber, and oil cake—materials which are bought in the American market because they are abundant, cheap, and of good quality. The item of machinery, which amounted in 1905 to $6,722,418, is practically the only one in which the consideration of quality—in other words, efficiency—may be assumed to have been the prime consideration.

THE NECESSITY OF SPECIALIZED EDUCATION.

In view of the eager and growing demand for the higher, more artistic forms of manufactured merchandise, not only throughout the United States, but in other countries whose trade our exporters are seeking to obtain, the question may be fairly asked whether the time has not come to consider seriously the further development of some of the higher forms of manufacture in which artistic handicraft, the trained skill of the specially educated workman, is the essential element.

The lessons which are taught by the success of France and Germany are in many respects radically different, but they all lead back to one source and inspiration—the indispensable necessity of higher, more general industrial and commercial education. Germany, with but limited natural resources, has within a single generation built up a great, prosperous industrial state, largely through the wise forethought that has trained its youth to be skilled chemists, weavers, dyers, machinists and workmen in every branch of manufacture adapted to their country, while at the same time others have been trained with equal care and thoroughness to sell the merchandise which the industrial army has produced.

The exporters of Saxony, the Rhineland, and Prussia have been able to challenge the supremacy of Great Britain because they are merchants as well as manufacturers. They are not content to make goods and wait for buyers—they seek the purchaser in whatever corner of the earth he may be, not by means of circulars and catalogues printed in the German language, weights, and values, but through salesmen educated for the purpose and familiar with the language, requirements, and local conditions of the market to be conquered.

France, on the other hand, with far less mercantile initiative outside of her own territory and colonies, maintains her export trade chiefly by making goods which the most advanced taste of foreign nations demands but which their own manufacturers can not successfully produce.

A VAST BUT EXHAUSTING EXPORT TRADE.

Turning to the United States we find that during the past fiscal year our country's exports reached the imposing total of one and a half billions of dollars, of which two-thirds approximately represent the output of the soil, waters, forests, and mines—natural products—which foreign countries must have, and which they buy from us because they are good in quality, plentiful in quantity, and reasonable in price. Their sale and export diminishes to that extent the resources with which nature endowed our country and which are being consumed and depleted at a rate that is ominous for posterity.

Of the $500,000,000 worth of so-called manufactured products exported from the United States last year fully 30 per cent consisted of two articles, refined mineral oils and copper electrolytically purified and rolled. Both of these are, in fact, native materials, which have passed through one or more processes of manufacture and the sale of which abroad is a direct drain upon the natural resources of the country. Of the more than $200,000,000 worth of merchandise that is exported from the United States to Germany in an ordinary year less than $15,000,000 will cover the export of really manufactured goods in which American exporters are brought into direct competition with those of Germany.

The same is true in an equal degree of our export trade to France, Belgium, and most other European nations. We furnish them with food, with raw materials, and with our most perfect machinery and tools to improve and cheapen their methods of production, but with comparatively little else. On the other hand we pay hundreds of millions annually to Europe for merchandise which represents something more and higher than the mere ability to tend a machine—the products of atelier or workshop into which the specially educated and trained artisan has put something of his individual character and genius.

Every consideration of economic foresight dictates that while yet the balance of natural advantages remains strongly in our favor the foundations should also be laid, deep and strong, for the higher and more subtle industries, the products of which are so appreciated in America and which now come almost exclusively from the Old World.

INDUSTRIAL EDUCATION.

HOW SKILLED ARTISANS ARE MADE IN SPECIAL TRAINING SCHOOLS.

Consul-General Mason believes it would be well for Americans to make a study of the system of industrial art education as developed and practiced in France. In the following report he describes those institutions located in Paris:

Leaving out of present account the renowned School of Fine Arts (Ecole des Beaux Arts), at which so many of the painters, sculptors, architects, and engravers of France and other countries are educated and trained at the expense of the State, the scope of this report concerns rather the strictly industrial art schools, where the future artisans, who are to continue the high traditions of artistic manufacture, are educated and prepared for their work. The principal institutions of this class in Paris are as follows:

THE GERMAIN PILON SCHOOL

is located in a quarter mainly inhabited by small manufacturers and their workmen, and receives only day pupils. The normal age of admission is 14 years, but boys of exceptional ability may be admitted when a year younger, provided they have obtained a "certificate of elementary studies" at a communal school. There is no formal extrance examination, but the candidate is required to execute a geometrical drawing to demonstrate his artistic aptitude, and write a short composition to show his scholarship and general intelligence. The course of instruction fills three years and is thus divided:

First year: Geometry, decoration, architecture, water color, sepia and black and white drawing, and modeling. Second year: Perspective, anatomy and geometrical drawing in sepia, ornamental designs for braids and trimmings, designs for furniture, the history of modern art, modeling and molding. Third year: The same as second year, with the addition of decorative composition and study of standard styles of art.

Graduates on leaving this school generally enter the workshops of some of the great furniture makers and decorators of Paris and the provinces, where they earn at first about $20 per month, but they are always in demand and their promotion is certain and rapid.

THE BERNARD PALISSY SCHOOL,

named after the great ceramic artist of the sixteenth century, may be considered a branch of the Germain Pilon School, already described, and is specially intended for the education of young men for certain industries, the designing and decoration of porcelain, designing of textile fabrics, carving and sculpture in wood, metals, and stone. Only pupils of French nationality are admitted. The candidate must be fully 13 years of age and reside in the department of the Seine, and must pass an entrance examination in reading, writing, history and drawing. The course includes four years, during the first of which the pupils continue the ordinary studies of that age: Grammar, geography, arithmetic, and history, as well as modeling, drawing flowers, lineal drawing, and ornamental designing. They are taken in classes to visit various workshops and ateliers, where they watch the finished artisans at their work and choose each for himself what branch of industrial art he will follow.

In addition to the practical work in each division the study of the three final years comprises decorative composition, drawing from plaster casts, the human figure, and ornaments, anatomy, modeling, perspective, the theory and history of art, and analysis of styles. There are at present in this school 13 masters and 132 pupils, divided as to choice of profession as follows: 25 decorators, 20 designers of textile fabrics, 20 sculptors in wood, ivory, and stone, 16 porcelain painters, and 51 pupils in the first year who have not decided upon their special line of study. From this school come many of the leading decorative painters, textile designers, and artisan sculptors.

The cost of maintaining these two schools is about $22,000 per annum, and they turn out together about 60 graduates each year. Next in order, and a step lower in the scale of art industry, come two schools which are specially devoted to instruction in certain handicrafts pertaining to special industries. These are:

THE ESTIENNE SCHOOL,

in which are taught all the arts connected with the production of books, viz, artistic typography, binding, engraving on wood, metal, and stone, photography, and photogravure. The school was named after a celebrated family of printers, the first of whom, Henri Estienne, was born in 1470, and founded an important printing and publishing house about 1502, which was maintained at the head and front of artistic publication in Paris for upward of 350 years. Applicants for admission to the "École Estienne" must be of French nationality, not less than 13 or more than 16 years of age, and resident in the city or suburbs of Paris. If the pupil lives in one of the suburbs (outside the fortifications), the commune to which he belongs must guarantee the payment of 200 francs ($38.60) annually. Candidates for admission must be able to write a dictation in French, solve two problems in arithmetic, and make a drawing from a plaster cast.

The admissions number about 90 per annum, which is the maximum number that can be received. The course occupies four years, but may be extended to five for those who study lithography or photogravure. During the first year the studies are general, and include the French language, history, geography, Greek reading, mathematics, physical and natural sciences, history of art and books, drawing, gym-

nastics, and military exercises. The final three years are devoted to technical studies, which comprise all branches of typography, binding and illustration, engraving on wood, metal, and stone, and the various processes connected with photography. The classes open at 8.25 a. m. and close at 6 p. m. A free luncheon at noon and simple refreshment in the afternoon are provided for all the pupils whose homes are in Paris; those from the suburbs are provided for in the same way from $38.60, paid in annually by their respective communes. There are at the École Estienne 30 masters, and the average attendance is 200 pupils. The cost of maintaining the school is about $40,000 per annum, and it sends out each year from 50 to 60 graduates, who find immediate and profitable employment.

THE DIDEROT SCHOOL

was founded in 1872 for the purpose of teaching all processes connected with the working of iron and wood. It receives only day pupils, who must be on entering from 13 to 15 years of age, must pass an examination, which includes an essay on a technical subject, a problem in plain geometry, and a free-hand drawing. The course of study occupies three years, during the first and second of which the pupils work under instructors from 8 a. m. to 6 p. m. Of this long day five and one-half hours are spent in the workshops and three hours in the class rooms, the remaining hours being given to extra study, meals, and exercise. Pupils of the third year spend seven and one-half hours in the workshops and only two in the class rooms. There are in all nine workshops, in which are taught and practiced the manufacture of instruments of precision, modeling, artistic forge work, turning, electrical fittings, and sanitary plumbing. A pupil on entering passes a few days in each workshop, in order that he may select which branch he prefers. When he has made his choice he enters that workshop, and is placed between two other boys—one of the second and one of the third year—and thus benefits by the experience of his two comrades.

Twice a year each pupil is called upon to make some particular article, without receiving any advice or explanation as to how it is to be made. These productions are judged by a jury of manufacturers and workmen, and money prizes are given for the best bits of work. The pupils often visit workshops and large factories, where the different processes of manufacture are explained to them by their professors. The director of the school receives many applications from manufacturers, and when a boy leaves school he can usually go directly to a permanent and relatively well-paid situation. This school has at present 19 professors and masters and 326 pupils, who, in addition to the manual trades above cited, are taught French grammar, history, geography, mechanics, physics, chemistry, ornamental drawing, and the elements of bookkeeping, the education which will enable a workman to rise step by step to the position of director and manufacturer.

OTHER SCHOOLS.

There are besides these the Dorian School, founded by a private philanthropist in 1871 to educate and train industrially the boys whose fathers had perished in the war, and the Alembert School, at Montevrain, near Paris, where 100 boys are taught painting and furniture making.

Finally, there is the Polytechnic Association and other organizations of a similar nature, which have a semiofficial character, and are designed to complete the education of adult artisans who are occupied during the day. They hold evening classes at many of the schools and lycées of Paris, in which nearly 1,000 adult pupils receive instruction in drawing, decorative composition, designing, languages, and other accomplishments. For these courses the municipal authorities give free use of the schoolrooms, with lighting and heating, and a cash subsidy of $50,000 per annum.

ART EDUCATION FOR GIRLS.

In all the higher schools and lycées for girls art study and the training which develops a correct, enlightened taste is made an essential part of the course of study. The pupils are taken by their teachers to visit museums and picture galleries, so that the vast resources of the Louvre, the Luxembourg, the Cluny, and other museums become available as object lessons.

Besides these there are five industrial schools, supported by the municipality, in which girls are specially educated in dressmaking, the making and trimming of hats, glass and porcelain painting, the making of artificial flowers, embroidery, and all the vast range of delicate, dainty handiwork for women, in the production of which Paris is unrivaled.

These schools are located according to the character of the population in the adjacent quarters, the highest in this respect being the school for china, fan, miniature, and glass painting, water-color drawing, and enamel work. In these branches there are two schools, founded by a wealthy French woman, Madame Elise Lemonnier, for the higher art education and training of women. The two remaining schools were also established by private beneficence, but have been purchased and taken over by the municipality into the public school system. When the schools were under private control the girl pupils paid a small tuition fee and could remain as long as they desired, but under municipal management all the girls' industrial art schools are free and the course of study is limited to four years.

AMERICA AS A COUNTRY OF ARTS.

Such, in brief, is the system of industrial art education which has done and is doing so much to render French taste and workmanship the standards for other nations, and to build up and sustain a vast export trade in merchandise in which originality of design and the intelligent handicraft of the educated artisan form the principal elements of value.

Nowhere are the highest products of French industry more cordially appreciated, more eagerly and liberally purchased, than in the United States. The thirst for knowledge, for the refinements which are the outgrowth of centuries of old-world civilization, are recognized everywhere as characteristic of a large and growing proportion of the American people.

May it not reasonably be hoped that with the ripening of our civilization such intelligent and liberal purpose may be shown in respect to industrial art education that future generations of Americans may not only buy at home many of the costliest goods that they now import, but compete as exporters of the choicest manufactures, in which Europe, and especially France, has now a virtual monopoly.

INDUSTRIES OF LYON.

CHANGING CONDITIONS AT FRENCH MANUFACTURING CITY.

Consul J. C. Covert reports on the varied industries of Lyon, the second manufacturing center in France, as follows:

There has been a continual increase in the output of aluminium. During 1905 a large aluminium factory was established. In the Department of the Var 75,640 tons of bauxite were mined in 1905, nearly all of which was exported to the United States. The electrical steel manufactures have become so important that scientific delegations have been sent from foreign countries to study the workings of the mills engaged in that line. The consumption of pyrites in the manufacture of sulphuric acid increased 57,000 tons in 1905, making the total production for the year 125,000 tons. The production of superphosphates show a large increase. The imports of mineral phosphates amounted to 446,000 tons in 1905, against 419,660 in 1904.

Fertilizers made from bones have always formed an important business, but there was a lack of the raw materials in 1905. The imports of bones dropped from 33,247 tons in 1904 to 28,456 tons in 1905. This industry is closely allied to the manufacture of glue and mucilage, of which the exports in 1905 amounted to 11,405,117 pounds. The exports of gelatines were 653,002 pounds, an increase of 132,000 pounds over 1904.

The use of vegetable dyestuffs continues to decline on account of the superiority of products derived from tar and coal. Substances derived from cochineal and orchall have almost gone out of use. Artificial indigo has been substituted for the genuine article in three-fourths of the establishments in and around Lyon. The mills in Lyon which have not passed into the hands of Germans gave up the manufacture of dyestuffs and are now devoting their energies to the production of perfumeries and pharmaceutics. The manufacture of artificial silk passed through a year of great adversity, and of the five factories erected in 1904, all are closed or are running on short time.

ACTIVE AUTOMOBILE FACTORIES.

The manufacturers of steam engines and gas and electrical motors had great difficulty to provide work for their employees. The building of locomotives for street railways and suburban roads was quite active. The steel cable business has found an important outlet in some of the French colonies. The automobile business flourished, and it is believed that the use of automobiles for hauling heavy loads will greatly increase the manufacture of this class of machines. One concern recently received an order for ten auto-omnibuses for London. A number of heavy trucks are being built for the army large enough to carry 5 tons. The autocarts for heavy hauling cost from $4,400 to $8,000. All the auto works are enlarging their factories, the machinery coming from the United States. The principal railroads of France contemplate substituting automobiles for motive-power use on some of the branch roads where the travel is light.

THE GREAT SILK CENTER.

The conditioning house through which all the raw silk passes that is used in the silk mills in and around Lyon registered in 1905 15,454,371 pounds, against 15,700,921 pounds for 1904, a decrease of 542,410

pounds. The decline was in raw silk. The exportation of raw silk and of silk partially worked was 1,871,905 pounds.

In 1905 France imported 12,947,615 pounds of raw silk and exported 5,270,998 pounds. In manufactures the silk mills of Lyons increased their output in a light article known as mousseline de soie (silk muslin). The manufacture of this article has increased in value from $500,000 in 1904 to $6,200,000 in 1905. The total sales of silks of all kinds, velvets, and other tissues at Lyon in 1905 amounted to $75,800,750, compared with $81,800,000 in 1904. In 1905 no account was taken of pongees, corah, and tussah, which were dyed and printed in 1904 and contributed to make up the aggregate of the manufactures of that year and which amounted to several million dollars. The value of plain silk goods showed a decline of $1,200,000 compared with 1904. On January 1, 1905, a tariff rate of 9 francs per 2.2 pounds was imposed upon tissues coming from India, Japan, and China. These were no longer classed as domestic manufactures, although considerable work was done on them in Lyon. In 1905 the imports of Asiatic tissues amounted to 270,625 pounds, nearly all of which were reexported, but they do not appear as exports. The imports of corahs, tussahs, and pongees were 1,457,901 pounds in 1904 and 264,220 pounds in 1905.

SIXTY MILLION DOLLARS OF SILK GOODS EXPORTED.

The customs figures give the total value of all exports of silk, passementerie, and ribbons for 1905 at $54,215,000, but to this should be added postal parcels valued at $6,501,800, making a total of $60,716,800, a slight decrease from previous year. The exports by countries are shown in the annexed table:

Country.	1904.	1905.	Country.	1904.	1905.
United States	$12,052,000	$8,162,600	Turkey	$1,096,400	$1,044,400
United Kingdom	28,667,600	30,519,600	Brazil	101,800	117,000
Germany	2,670,800	2,446,800	Argentina	220,800	258,600
Belgium	1,539,800	1,480,400	Algeria	331,600	203,200
Switzerland	1,772,600	1,667,800	Other countries	6,103,200	6,375,800
Russia	85,200	99,800	Postal parcels	4,085,200	6,501,800
Austria	1,009,200	605,400			
Italy	901,000	528,800	Total	61,466,800	60,716,800
Spain	829,600	703,800			

REFRIGERATORS NEEDED.

SUPERIOR AMERICAN KIND SCARCELY FOUND IN FRANCE.

Consul-General R. P. Skinner reports that only within recent years has the use of ice become at all general in Marseille, and that the use of refrigerators is not yet general, although the tendency is in favor of their adoption in small households.

In the shops one sees a small variety, mainly of crude and unsatisfactory appearance, which sell for $8 upward. Many of these refrigerators are manufactured in France, but the German makes seem to be more commonly offered for sale. From an American point of view, the German refrigerators are not much better than the French. At one or two well-known places American refrigerators are found, but

the complaint is that they are too expensive and that their recognized excellence will not sell them as against German or French makes at much lower prices. The dealers themselves appear to possess very little real information about refrigerators, and in order that American manufacturers may introduce their wares it will be necessary for them to send over representatives equal to the task of making their merits plain.

Some friends, impressed by advertising in American magazines, have imported up-to-date refrigerators, after experimenting with such as are sold on the open market, and have been delighted with the results. The business is here if our manufacturers care to work for it. The difficulty is, as in so many other cases, that retailers buy in small quantities and that American manufacturers are not equipped to push the trade from a central European sales agency.

One of the remedies would be a combination of a half dozen manufacturers of allied but noncompeting lines for the maintenance in France of a wide-awake importing and sales agency, so that the expense of introducing American specialties might not fall wholly upon one manufacturer, who could get equally good results by disposing of his lines in combination with several others. The maximum import duties on refrigerators per 100 kilos (220 pounds) are $1.158 for common wood, $2.51 for hard wood, and $5.79 for ornamental wood, while the minimum rates are respectively 96 cents, $1.93, and $3.86. Imports from the United States pay the maximum rate of duty. [A number of addresses of Marseille merchants selling refrigerators are on file at the Bureau of Manufactures.]

AMERICAN INFLUENCE.

Consul Nason of Grenoble reports that American influence is becoming apparent in business affairs in France. He writes:

More and more the word "American" is to be seen in the advertisements of the papers and in shop windows, showing that if American goods are not coming in rapidly there is a slow but steady inflowing of American manufactures of patterns and designs of the practical labor-saving kind.

The French ideas of "comfort," of "convenience," of "despatch," of the best and easiest ways of "doing things," are slow to expand and materialize, especially in the provincial districts; but changes are coming. Competition and outside contact, new wants and opening possibilities, the desire to keep pace with the world, the "teuff-teuff" of the automobile heard on every side, are awakening new interests and new ambitions which will quicken the oncoming generations to broader activities and fuller possession of the goods and the good things necessary to the betterment of life's conditions.

DECAYING COLONIAL FISHERIES.

A report to the British foreign office gives a doleful account of the French colonies of St. Pierre and Miquelon and five lesser islets lying off the coast of Newfoundland. These possessions consist of rugged masses of rock with a thin coat of soil, and boast of little vegetation. There is one safe harbor, St. Pierre, around which has been built the

town of that name, the seat of government. Its population in 1903 was some 5,400, out of a total of 6,500 in the whole colony, but since that time, owing to the growing scarcity of codfish, the consequent decline of trade, and the higher cost of living, some 1,000 persons have emigrated to Canada and the United States.

The British consul reports empty sheds, stores, shops, and houses in various stages of disrepair and decay; fish-drying yards, carefully prepared with large stones for airing the cod, now choked with weeds, and the surrounding woodwork succumbing to wind and weather; landing stages gradually rotting and falling to pieces, and merchants liquidating and going away, while none come to replace them, as some of the usual signs of bad times now to be seen. Everything has to be imported in the way of merchandise, as the islands produce nothing, being used for the fish industry. The cod export, which amounted in 1898 to over $3,000,000, dropped last year to less than one-half that sum. On an average they have one hundred days of fog in a year in these islands.

GERMANY.

RAPID COMMERCIAL STRIDES.

EMPIRE TRANSFORMED INTO A GREAT INDUSTRIAL NATION—EXPORTATION OF MANUFACTURES BECOMES ENORMOUS.

Consul-General A. M. Thackara, of Berlin, reports that the total foreign trade of Germany in 1905 amounted to $3,160,187,800, an increase of $263,704,000 over 1904.

The increase in imports was $138,468,400 and in exports $125,235,600 over those of the previous year. The weight of the imports in 1905 was 54,307,200 metric tons and of the exports 40,556,200 metric tons. Raw materials comprised 46.5 per cent of the total imports; provisions and foodstuffs, 31.5 per cent; manufactures, 18 per cent, and precious metals, 4 per cent. Of the exports, 65.4 per cent were manufactures, 24 per cent raw materials, 8.7 per cent provisions and food products, and 1.9 per cent precious metals. Arranged in groups, the imports and exports for 1904 and 1905 were as follows:

Groups.	Imports.		Exports.	
	1904.	1905.	1904.	1905.
Raw materials	$756,364,000	$822,789,800	$299,166,000	$333,342,800
Manufactures	290,061,000	316,064,000	819,196,000	910,016,800
Provisions and food products	465,623,000	557,824,000	124,664,400	120,761,200
Precious metals, crude and coined	119,047,600	73,161,400	22,086,400	26,227,600

INCREASE IN THE EXPORTS OF MANUFACTURES.

The most notable features of the above statement are the increase in the value of the exports of domestic manufactured goods and the decrease in the value of the food products, which indicate the results of the economic revolution which has taken place in Germany, by which the Empire, from an agricultural country, has become one of

the leading industrial nations of the world. The principal articles of import and export for 1905 are shown in the annexed table.

Articles.	Imports.	Exports.	Articles.	Imports.	Exports.
Aniline, etc		$28,966,600	Iron and steel, and manufactures of—Continued.		
Animals: Horses	$24,823,400		Manufactures, fine		$24,823,400
Bicycles and parts		7,092,400	Sheet and plate		8,568,000
Books, etc		22,943,200	Structural		9,139,200
Breadstuffs:			Wire		9,424,800
Barley	45,101,000		Lard, etc	$26,084,800	
Corn	23,324,000		Leather and leather goods		31,439,800
Oats	25,489,800		Lignite	13,232,800	
Rye	16,184,000	8,782,200	Linseed	16,588,600	
Wheat	78,397,200		Malt, etc	24,561,600	
Butter	17,564,400		Oil cake	17,683,400	
Caoutchouc, etc	33,867,400	9,282,000	Oil: Petroleum	16,112,600	
Clothing		27,298,600	Porcelain		15,374,800
Coal and coke	31,820,600	78,448,800	Saltpeter	26,894,200	
Coffee	40,531,400		Silk, and manufactures of:		
Copra, etc	14,637,000		Raw and uncolored	30,130,800	
Copper, and manufactures of:			Fabrics		35,557,200
Raw	36,080,800		Sugar		43,506,400
Manufactures, including brass		11,566,800	Tobacco	29,059,800	
Cotton, and manufactures of:			Toys		16,279,200
Raw	94,771,600	8,591,800	Wood, manufactures of:		
Fabrics	10,710,000	90,487,600	Building	21,705,600	
Yarn	15,541,400	8,115,800	Lumber	31,035,200	
Eggs and yolks	28,893,200		Wool, and manufactures of:		
Engravings, etc		18,921,000	Raw	77,873,600	
Fancy goods, etc		8,829,800	Combed	16,493,400	8,282,400
Flax and jute	22,729,000		Fabrics		69,900,600
Furs and feathers	30,130,800	24,109,400	Yarn	22,292,000	15,113,000
Gold and silverware		27,869,800	Zinc		8,163,400
Hides and skins:			All other articles	647,496,800	559,290,000
Calf	14,280,000		Total	1,710,601,200	1,369,309,200
Cow	33,524,600	10,995,600	Bullion and specie:		
Goat and sheep	12,352,600		Gold coin	27,512,800	12,614,000
Instruments: Pianos, etc		8,887,400	Gold ingots and bars	31,725,400	
Iron and steel, and manufactures of:			Silver bars, etc		8,425,200
Ore	24,371,200		Grand total	1,769,839,400	1,390,348,400
Bar, etc		7,782,600			
Billets and ingots		8,615,600			
Cables		9,520,000			
Machinery	18,730,600	69,139,000			
Manufactures, coarse		33,201,000			

VARIATION IN IMPORTS AND EXPORTS.

The value of raw cotton imported showed a decrease of $17,000,000 compared with 1904, but the weight was 4,740 metric tons greater. The United States furnished 299,761 tons, East Indies 61,885 tons, and Egypt 34,718 tons. Raw wool imports increased $9,000,000; coffee, $4,100,000; rubber, $7,800,000; sawed lumber, $3,500,000; raw silk, $5,300,000, and iron ore, $2,500,000. The receipts of petroleum were $3,200,000 less than in 1904.

Of the exports, cotton and woolen goods and machinery showed an increase of over $30,000,000; clothing, $3,500,000; aniline and other colors, nearly $3,000,000, and leather and leather goods, $2,500,000. In fact all industrial products, with perhaps the single exception of coarse iron manufactures, showed a notable increase.

The imports and exports by principal countries are given in the subjoined statement.

Countries.	Imports.	Exports.	Countries.	Imports.	Exports.
United States	$239,023,400	$129,334,000	Turkey	$12,280,800	$16,898,000
Russia	259,610,400	87,679,200	China	10,210,200	18,040,400
United Kingdom	186,063,400	251,756,400	Japan	4,855,200	20,134,800
Austria-Hungary	184,021,600	141,372,000	Norway	5,783,400	16,802,800
France	97,365,800	69,853,000	Mexico	5,283,600	10,353,000
Argentina	87,869,600	31,297,000	Cuba	4,141,200	4,688,600
British India	74,065,600	23,490,600	Portugal	3,950,800	6,616,400
Belgium	66,045,000	74,375,000	Canada	2,332,400	5,188,400
Netherlands	61,118,400	106,814,000	Bulgaria	3,641,400	2,951,200
Italy	51,408,000	41,745,200	Venezuela	3,570,000	1,285,200
Switzerland	45,291,400	88,012,400	Guatemala	5,236,000	
Brazil	41,031,200	17,064,600	Uruguay	4,165,000	5,188,400
Chile	40,103,000	12,733,000	Bolivia	3,641,400	1,142,400
Australia	38,103,800	12,209,400	Ecuador	2,784,600	880,600
Denmark	29,535,800	44,244,200	Peru	2,689,400	3,260,600
Sweden	28,369,600	37,865,800	Colombia and Panama	2,313,400	1,714,000
Dutch India	28,298,200	7,187,600	Other countries	58,019,600	66,142,400
Spain	27,798,400	12,637,800			
Roumania	22,395,800	10,567,200			
Egypt	14,422,800	7,211,400	Total	1,769,839,400	1,390,348,400
British West Africa	12,399,800	1,666,000			

IMPORTS FROM THE UNITED STATES SECOND IN VALUE.

From the above statistics Russia heads the list in imports, the United States being second. If the gold imports are not considered, the United States would move up to first place, with $236,167,400, followed by Russia with $234,525,200. German statistics indicate that the trade balance between the United States and Germany in 1905 amounted to $109,789,400 in favor of the United States, while American official figures place the trade balance at $88,578,139. The discrepancy, to a certain extent, is explained by the fact that a large amount of merchandise included in the German import figures is landed at Hamburg and Bremen in transit to Russia, Austria-Hungary, and Switzerland, and besides values in the German statistics are estimated and are not absolute. The principal articles imported from the United States during the past two years, expressed in metric tons, are shown in the following table:

Articles.	1904.	1905.	Articles.	1904.	1905.
Breadstuffs:	*Tons.*	*Tons.*		*Tons.*	*Tons.*
Barley	12,760	35,428	Hides and skins	6,015	6,565
Corn	208,428	518,465	Lumber, etc	339,256	320,316
Wheat	184,216	65,922	Machinery and tools	15,794	20,631
Copper	98,417	90,202	Oil cake and meal	178,388	203,661
Cotton:			Oil:		
Raw	281,280	299,761	Cotton seed	31,820	51,349
Waste	11,380	11,660	Petroleum and products	855,753	867,662
Fruit:			Provisions	14,540	26,458
Dried	41,183	28,808	Tobacco, leaf	9,094	11,359
Fresh (apples)	14,925	14,906	Shoes	100	155

INCREASED IMPORTATION OF RAW MATERIALS.

It will be noted that increases are shown in raw materials. Copper, it is true, indicated a falling off in weight of 8,215 tons, but this is not an indication that the electrical and other industries using the metal were not prosperous. The decrease was due to the excessive imports in 1904, and to the scarcity and high price of copper in 1905. Owing to the sharp rise in prices the value of the copper imports from the United States exceeded that of 1904 by $3,403,400.

The large increase in the imports of American agricultural and other machinery was mostly owing to the desire of the importers to lay in stock in anticipation of the higher duties of the new tariff law.

The excellence and labor-saving qualities of the best grades of American machines are unquestionable, but the time has passed when those of inferior make can find a ready sale in Germany. The exposition held some two years ago in Dusseldorf was a revelation to American manufacturers who attended.

The Germans exhibited lathes, drill presses, and other machines which, for originality of design, construction, effectiveness, and price, were but little if any behind similar machines of the best American models. Agricultural machinery is also manufactured in Germany, which is becoming a competitor of that made in the United States. In 1905, Germany exported 14,562 tons of agricultural machinery, valued at $2,659,650 of which 6,187 tons went to Russia.

AMERICAN BRAND PROTECTED.

American shoes continue to hold their own in the German market, notwithstanding the competition of native shoes made by American machinery, of American leather, and on American lasts. The German consumer recognizes the superiority of the American product, and as it is protected by the provisions of a strict law which forbids a dealer to advertise his wares by misleading statements its sales will probably continue. The German shoes may be displayed as "made after American style," or "made on American lasts," but not "made in America."

In 1905 the United States supplied 74 per cent of the German imports of cotton, 88 per cent of the copper imported, 28.8 per cent of the wood, 9 per cent of the tobacco, 54 per cent of the corn, 19.1 per cent of the machinery, 35.3 per cent of the oil cake and meal, 73 per cent of the petroleum and products, and 77 per cent of the lard. The declared exports to the United States amounted to $125,724,321, an increase of $14,484,096 over 1904.

PROGRESS IN MINING AND METALLURGY.

Unusual activity was manifested in most of the mining and mineral industries during 1905. Notwithstanding the great strike which took place among the coal miners in the Ruhr district during the first part of the year, the coal production exceeded that of 1904, and was the largest on record. The output of the principal minerals in metric tons was: Coal, 121,298,160; lignite, 52,498,500; iron ore, 23,444,070; potash salts, etc., 5,044,370; zinc ore, 731,280; copper ore, 793,480; rock salt, 1,165,470, and silver and gold, 9,628.

The production of metals, in metric tons, was as follows: Pig iron, 10,875,061; zinc, 198,208; lead, including letharge, 152,590; and copper, 31,720. There was also produced 747,505 pounds of silver, and 8,653 pounds of gold. The wonderful strides which Germany has made in her industries are reflected in the coal and iron production. In 1890 the output of coal and lignite was 89,290,000 tons, while in 1905 it was 173,736,000 metric tons, a gain of over 95 per cent in fifteen years. The production of pig iron in 1890 was 4,658,500 metric tons as compared with 10,875,061 tons in 1905, an increase of over 133 per cent in the period.

INCREASING AMERICAN SALES.

The amount of exports to the United States reported by the American consulate-general in Berlin to the American Commerce Bulletin, of Berlin, for the third quarter of the year 1906, shows a decided increase, giving a total of $3,738,141, against $3,057,293 for the same

period in 1905, an increase of $680,848 for that consular district. The exportation of chromos, chemicals, paints, skins, fancy feathers, and leather for same period shows a very considerable increase.

TOYS FOR AMERICA.

GREATLY INCREASED TRADE—FACTORY OPERATIONS.

Consul George N. Ifft reports from Annaberg, one of Saxony's great toy manufacturing towns, in regard to the annual contribution of Germany to the toy supply of America for the last season.

It is estimated that from January 1 to September 1, 1906, a total of 9,895 tons of toys were sent from Germany to the United States, as against 8,716 tons for the same period last year. During the same period 5,498 tons of German toys were sent to England, but as a considerable portion of this class of goods for the English Christmas trade is shipped after September 1 the total export to England will probably not fall far below that to the United States. It is also estimated that toys to the value of 15 to 18 million marks ($3,571,428 to $4,285,714) are required annually to supply the German market.

While usually the second item in value on the list of declared exports from this district, toys constitute less than 10 per cent of the total exports from the Annaberg consular district to the United States. Shipments for the first ten months of the calendar year 1906 were invoiced at $51,673, which is $6,526 in excess of the total toy shipments from the district for the year 1905.

From all centers of the toy industry in Germany a fair demand is reported throughout the entire year, but with this are coupled extremely unsatisfactory labor conditions. The steady advance in the cost of living everywhere in Germany has caused a very general demand for higher wages, and in many districts strikes have been inaugurated to enforce these demands. A strike of toy-factory workmen, extending through a number of weeks and involving many workmen, has just been ended at Nuremberg by the granting of not only higher wages but also of shorter hours of labor. The toy makers, both the factory employees and what are known as the "house workmen" (those who work at their own homes) are everywhere organizing for mutual protection—to enforce their demands for increased wages from the manufacturers and for better prices from the factors or selling agents.

HIGHER COST OF MATERIAL.

To these conditions must be added heavy advances in the prices of raw materials, especially in mohair, mohair wool, cotton goods, and woolens—in some instances as much as 50 per cent. The result has been a very unsatisfactory condition of the industry, both from the standpoint of the manufacturer and of the workman. Most of the factories engaged in the manufacture of toys for the American market have been kept busy throughout the year, but other factories have suffered many interruptions from the conditions mentioned. All are, however, now working full capacity and some overtime to supply the home demand for the Christmas trade. The centers of the toy industry were busier later in the season than for several years past, due in a large measure to the various interruptions earlier in the season.

The toys manufactured in the Erz Mountains of Saxony are mostly of wood, and the industry has therefore not been particularly affected by the advance in prices of raw materials elsewhere. While there are

quite a number of factories, there is a very large "house" industry—work in the homes. The factory employees are perhaps a minority and are not so well organized as at Nuremberg and other points. As a result the industry has been less subject to disturbance, either from strikes, demands for higher wages, or unsatisfactory prices. The advance in the cost of living has, however, been keenly felt in the Annaberg section, as elsewhere in Germany. Locally, however, manufacturers and agents at Marienberg, Olbernhau, Grünhainichen, Waldkirchen, and Zöblitz have had a good season and a fairly prosperous trade with the United States.

BUSINESS AT CHEMNITZ.

SALES TO THE UNITED STATES ENORMOUSLY INCREASE.

Consul E. L. Harris reports on the industrial condition of Chemnitz, Germany, as follows:

Apart from the increased business done with the United States, such countries as Canada, Australia, South America, and the Orient showed a greater demand for hosiery than in former years. Foreign competition, especially on the part of those countries having unbounded resources of iron and copper, has done much to prevent any substantial advancement of the machine industry. The import of the American bicycle into this district has practically ceased for the reason that German manufacturers are making the machines. The development of the motor car can be said to be only in its infancy, and the security of their permanency rests primarily upon the magnificent system of public roads existing throughout the Empire.

The typewriter industry has also prospered. The American machine is popular, and the field has in no wise been thoroughly exploited. Generally speaking, the American shoe continues to be the most favored in Germany. It has forced the Austrian shoe out of the market as far as elegance and durability are concerned, although many of the latter make are sold. Some French shoes are being sold in Chemnitz. For some years the export of buttons from Saxony to the United States has been on the decline. In 1905 German buttons went principally to England and her colonies. In spite of the greater quantities of kid gloves exported to foreign countries over 1904, the enormous price of lambskins and the high wages paid to labor caused the profits to be very meager.

The exports to the United States for the calendar year 1905 amounted to $7,730,234, and for the fiscal year 1906, $9,034,588. The articles of export for the fiscal year were:

Articles.	Value.	Articles.	Value.
Cotton goods	$13,605	Machinery	$197,307
Dress goods	23,551	Mufflers and ties	4,249
Gloves:		Paper	26,418
Cotton	1,405,293	Scientific instruments	14,636
Wool	284,967	Toys	23,030
Silk	244,974	Underwear	183,360
Kid	15,087	Upholstery goods	88,571
Hosiery:		Wire	5,581
Cotton	6,034,051	Wool-combing cards	20,578
Wool	50,031	Yarn	12,242
Silk	181,331	Other articles	81,493
Knit goods	10,028		
Knitting-machine needles	61,389	Total	9,034,588
Lace	25,094		
Linen goods	27,722		

NETWORK OF GERMAN BANKS IN THE ORIENT.

Consul Harris adds that the German Orient Bank in Berlin has just recently established branches in Hamburg, Constantinople, and Alexandria.

It is also announced that further branch establishments will be founded in other cities of the Levant when the same are necessary. It is the intention of the bank to form a network of banking houses not only in the Levant, but in Greece and Egypt as well, for the purpose of pushing German trade. These institutions will make it their business to give information concerning the credit standing of business firms in the Orient. Good agents and representatives will also be recommended upon request. In this connection the Orient Bank in Berlin has asked the Chemnitz Chamber of Commerce to furnish names of all the firms in this district doing business with the Levant, so that the question of enlarging markets and the various kinds of products adaptable for oriental trade might be discussed.

RETAIL METHODS.

ORGANIZED STOREKEEPERS HAVE A FUND FOR CASH PREMIUMS.

Consul George A. Bucklin, jr., of Glauchau, writes that the popular belief that one must higgle with the European retail merchant or be cheated in the article bought does not hold true with regard to many of the German markets at the present time.

Instead one finds plainly marked prices, and inducements for the payment of cash are even made. A plan adopted in Glauchau has been found successful, not only in encouraging cash payments, and thus avoiding bad debts, but it has led to a greater amount of business being done, due to confidence on the part of the customer that he is not being cheated. The main points of the system are as follows:

There is a voluntary union of merchants organized and having corporate powers. Each member must be a storekeeper, and an initiation fee of 50 marks (mark=23.8 cents) is charged on joining. The price of goods must be marked plainly, and the customer paying cash at the time of purchase is entitled to "rebate stamps" showing the amount bought. When stamps showing purchases to the amount of 110 marks have been accumulated by a purchaser he presents them, pasted in a book furnished for the purpose and showing his name, for redemption and receives therefor 5 marks, this being a little more than 4½ per cent of purchase price of goods.

The distinctive German feature of this plan is that the funds of the union and the redemption of the stamp books are in the hands of the city savings bank, which guarantees the payment of all obligations. This it is enabled to do from the fact that stamps used by the merchants are paid for in advance to the bank. Thus there is money on hand to redeem every stamp outstanding. Furthermore, to cover expenses, the merchant pays more for the stamps than is refunded to the purchaser of goods. The city council has had the city savings bank undertake the financial responsibility of the plan because of the evident commercial advantage to the city, the only reimbursement for the services of the bank being the use it has of the union's funds.

As usually happens, there is a surplus remaining at the end of the

year from initiation fees and excess paid by merchants for stamps. This surplus is distributed as prizes in amounts of 5 marks each to the persons whose names appear on the redeemed books first drawn at random from the files of the current year. It is believed that this surplus for 1906 will amount to over 500 marks.

COMMERCIAL ATTACHÉS FOR CONSULATES.

Consul Henry H. Morgan, of Stuttgart, reports that the German Government is appointing trade experts to all of its important consulates. It is the duty of these commercial attachés to increase Germany's foreign trade, and these experts of trade and commerce are always in direct communication with all the leading manufacturing and exporting houses of the German Empire, and they make frequent trips to Germany for the purpose of personal conferences with them. It is reported that the results are satisfactory and that many more of these commercial attachés will be appointed in the near future. Lately such attachés have been appointed to the German consulates-general at Tokyo, Japan, and at Rio de Janeiro, Brazil.

UNITED KINGDOM.

REVIEW OF IRISH COMMERCE.

TOTAL TRADE OF THE ISLAND—AMERICAN OPPORTUNITIES.

Consul Alfred K. Moe, of Dublin, furnishes the report on the trade in imports and exports at Irish ports during the year 1904, just published by the Irish department of agriculture and technical instruction. He writes:

It is the first report of such a nature that has been issued in over eighty years. The value of having a single statistical report covering Ireland, so that at a glance the trade volume may be discerned, is very important, and though the subject goes back two years it may, nevertheless, be found of value to our exporters and manufacturers for comparative purposes. During the past few years a considerable movement has been sweeping over Ireland for the purpose of reviving old industries and stimulating new ones, but the movement has not made the progress which its supporters had hoped for. The great mass of the Irish people, to whom perforce assistance must be asked in such an enterprise, still hold aloof and buy their commodities in the cheapest markets. Unfortunately, a large part of the Irish people are unable to pay high prices even for superior merchandise.

A leading Dublin newspaper, on November 15, stated editorially:

> Nothing was more startling in the recent report on Irish imports and exports than the evidence which it furnished of the large importations into this country of goods which are already produced here and might be produced in very much larger quantities. Ireland is celebrated for her butter, and last year exported over £3,000,000 worth, but it is strange to find that she also imported butter to the value of £227,125 (£ = $4.86), to say nothing of margarin, valued at £95,186. Cheese, too, to the value of £118,465 came in. Why can not Ireland manufacture cheese for herself? Surely some of the £93,780 spent on apples and pears, and of the £88,546 spent on jams and preserves could also have been retained at home, and much encouragement thereby given to two important industries.

Wood to the value of £235,479 was exported from Ireland, but over eight times as much was brought into this country. In the same way it is difficult to believe that with more encouragement from their fellow-countrymen Irish manufacturers could not have benefited by at least a portion of the large sums spent on such things as leather, boots and shoes, soap, slates, and other commodities imported from Great Britain and other countries. Finally, though we are fully aware of the difficulties attending tillage in Ireland, we are not convinced that as much is done in this direction as might be, and that some, at least, of the £11,000,000 now spent on imported grain, meal, and flour, might go into the pockets of Irish farmers, laborers, and millers.

IMPORTANCE OF IRISH MARKETS

Ireland, it will be seen from this, is a very good customer of other countries, and American manufacturers and productions could (with some exceptions) find a ready market here. But it must be pointed out again that the most certain method of gaining a larger business here is to have direct importation instead of through British houses and agencies.

The value of the imports in 1904 amounted to $268,378,738, and the value of the exports to $226,810,195. But these totals do not exhaustively represent the import and export trade. The returns as regards farm produce, foodstuffs, and raw materials may be considered as complete. On the other hand, as regards manufactured goods, especially the more valuable grades of such goods, the information is somewhat inadequate. The value of the aggregate trade—import and export—is $495,188,933; but in view of the quantity of manufactured goods imperfectly recorded, it is not improbable that the aggregate value of the trade may reach an annual sum exceeding $511,000,000. The character of this trade may be briefly indicated by means of the following summary :

	Imports.	Exports.
I. Farm produce, food and drink stuffs—		
(a) Live stock, meat, bacon, fish, and dairy produce	$14,736,589	$114,095,685
(b) Crops, fruit, meal, flour, etc	57,712,801	8,378,910
(c) Spirituous liquors, porter, ale, cordials, etc	4,473,096	20,547,307
(d) Tea, coffee, tobacco, spices, etc	20,587,621	5,456,645
II. Raw materials—		
(a) Coal	12,962,034	
(b) Wood, hewn and unhewn	9,149,482	1,145,958
(c) Mineral stones, slates, metals, ores, clays, paraffin, etc	4,928,898	1,372,747
(d) Animal and vegetable products—fats, hides, dyestuffs, seeds, flax, hemp, etc	22,040,387	14,927,491
III. Goods partly manufactured or simple manufacture	38,767,234	12,540,936
IV. Manufactured goods	83,020,596	48,344,516
	268,378,738	226,810,195

VALUES OF THE CHIEF IMPORTS.

The following table shows the commodities imported during 1904, those under the total valuation of $486,650 being omitted:

	Quantity.	Value.
Ale and beer.....barrels	170,368	$1,658,192
Spirits.....gallons	667,995	663,703
Wine.....do	1,001,385	667,401
Guns and rifles		692,600
Butter.....cwt	55,258	1,105,301
Bicycles		1,216,625
Cement.....tons	106,565	669,854
Cheese.....cwt	42,309	576,510

		Quantity.	Value.
Acid	cwt.	31,198	$3,795,627
Mineral phosphate, raw	do.	60,981	565,867
Superphosphate	do.	46,818	569,599
Artificial manures	tons.	68,107	2,058,427
Fire-clay goods	cwt.	150,882	679,198
Coal	tons.	4,413,995	12,888,390
Lard	cwt.	75,852	922,834
Fruit, dried and preserved	do.	104,809	561,054
Glass and glassware			775,487
Wheat	cwt.	6,932,774	12,648,034
Oats	do.	424,736	568,417
Barley	cwt.	1,315,912	1,921,211
Malt	do.	806,741	2,486,470
Rye	do.	404,403	541,208
Maize	do.	13,124,589	15,169,318
Hops	do.	66,862	1,952,308
Wheat flour	do.	5,420,779	18,190,113
Oatmeal	do.	152,634	529,242
Meal, unclassified	do.	407,154	495,351
Bran and pollard	do.	1,490,596	1,722,824
Lin-seed cake	do.	23,643	728,690
Leather	do.	61,353	1,951,082
Boots and shoes			8,387,047
India rubber goods			981,115
Machinery			4,796,909
Beef	cwt.	94,726	712,869
Bacon	do.	628,465	7,187,300
Provisions and groceries			751,874
Copper	tons.	1,676	554,620
Steel	do.	55,502	4,186,557
Bar and wrought iron	do.	62,659	1,982,048
Plate and sheet iron			501,868
Boilers and cylinders			499,692
Railway plant			788,592
Hardware			2,083,057
Iron manufactures, unclassified			2,702,757
Petroleum and paraffin oil			2,455,996
Oils unclassified			1,559,660
Paper	tons.	709,152	3,107,294
Stationery			757,948
Soap	cwt.	138,112	739,333
Slates	tons.	25,096	519,051
Sugar	cwt.	2,689,864	7,854,132
Confectionery	do.	103,904	1,011,290
Tea	lbs.	30,246,944	5,252,218
Cotton, raw			7,075,891
Cotton, yarn			2,702,913
Cotton goods			17,149,989
Flax	tons.	27,909	7,587,965
Linen yarn	lbs.	10,522,400	1,813,564
Linen goods			2,108,538
Hemp	tons.	18,485	2,165,631
Tow and codilla	do.	5,345	572,251
Bags and bagging	cwt.	161,595	1,834,938
Silk and velvet			688,804
Wool	lbs.	3,454,080	630,348
Wool yarn	do.	2,694,832	1,311,439
Carpets			1,011,687
Woolen goods			4,746,249
Thread	lbs.	1,144,304	696,094
Yarns, unclassified	do.	2,347,632	633,219
Hosiery			615,194
Drapery			18,690,377
Apparel, unclassified			3,140,907
Tobacco, manufactured	lbs.	3,631,326	3,534,369
Tobacco, unmanufactured	do.	13,355,847	1,624,905
Tobacco pipes			496,650
Timber			4,675,928
Boards and deals			2,806,593
Railway sleepers			562,684
Furniture			1,762,208

The most noteworthy exports were those of live stock, estimated at $67,113,366; butter, $15,548,540; eggs, $10,648,408; fats, $1,721,141; potatoes, $1,272,931; hides and skins, $2,348,797; condensed milk, $1,467,576; clover and grass seed, $823,612; bacon and hams, $10,651,917. Of the other exports, whisky, porter, ships, linens, and woolens hold a prominent position.

WELSH INDUSTRIAL STIMULUS.

MULTITUDE OF COTTAGE PRODUCTIONS AT LONDON EXHIBITION.

Consul D. W. Williams, writing from Cardiff, says that the annual exhibition of the Welsh Industries Association, held in October under the patronage of the Lord Mayor of London, was the most successful in its history.

This association was organized in 1898 to encourage and assist cottage, suburban, and rural workers, and at its depots maintained at London, Liverpool, Cardiff, and Aberyetwyth it receives for sale weaving, knitting, embroidery, lace, crochet and needle work, wrought iron and metal work, wood carving, turning, inlaying, pottery, china, enameling, photography, bookbinding, leather work, basket and straw plaiting productions, and cheese, honey, and butter. The association aims to combine sentiment with business, and it has been the means of reviving national patterns, fabrics, and industries that had been waning. It also aims to arrest the rural exodus to the towns. To secure these results it furnishes to the workers artistic designs and sometimes material, maintains classes, in which are taught weaving, dyeing, needlework, lace copying, quilting, basket making, etc., and then sells the products to the best advantage.

At the last exhibition the fine art needlework, the flannels, tweeds, poplins, shawls, and homespun, the agate work and art jewelry, enameling, baskets, wooden bowls and spoons, old furniture, and the pottery in particular attracted much attention. Llanelly pottery finds a ready sale as far away as Turkey, Egypt, and Africa, and it is said that English tourists have bought it in those countries and brought it home as "native" work. The association has already demonstrated its usefulness by its encouragement of industry in the home and the elevation of the artistic ideals and standards of the Welsh.

WOODEN-WARE MARKETS.

VARIOUS ARTICLES IN DEMAND IN SCOTLAND.

Consul Rufus Fleming, of Edinburg, finds that considerable quantities of American manufactures of wood are sold in that part of Scotland. He writes:

I refer to every kind of wood goods, from furniture to clothespins. Of furniture, the principal American article in the trade is office desks. In other lines, the leading commercial items have been handles for various implements, doors, sashes, and blinds. The sales of our wooden ware in this part of Scotland are now small, with an upward tendency. The variety and comparative abundance of wood in America and the superiority of our wood-working machinery should secure for our wooden-ware manufacturers a stronger position in the Scottish market. It may be questionable whether the trade will ever grow to great importance, for some of these articles are not as generally used here as they are in America or England, and a preference for certain enameled ware, mostly Belgian, in this district has further restricted the demand for wooden ware, but various wooden utensils, etc., are essential in every household, and, in view of the fact that British wood-working firms must import most of their material, it would seem that the American makers might obtain a larger share of this business than

they now have. The United Kingdom is by far the best foreign customer of our woodworking establishments, but in this particular section of the country little effort has been made, apparently, to bring the merits of our ware prominently before the trade and public.

Retail prices (cash) of some of the wooden ware kept in stock by furnishing firms in this city may be of interest: Round tubs, with galvanized-iron hoops, 16 inches, 73 cents; 18 inches, 91 cents; 20 inches, $1.13; 22 inches, $1.46; 28 inches, $2.55. Oval tubs, 14 inches, 73 cents; 16 inches, 91 cents; 18 inches, $1.15. Ash buckets, 18 inches, 40 cents; 21 inches, 54 cents. Knifeboards, 18 inches, 14 cents; 21 inches, 18 cents; 24 inches, 22 cents; 27 inches, 30 cents; 30 inches, 34 cents. Baking boards, 24 inches, 79 cents; 27 inches, 85 cents. Egg stands, to hold 2 dozen eggs, 20 cents each. Skirt ironing boards 42 inches, 91 cents; 48 inches, $1.09; 54 inches, $1.33. Sleeve boards, 42 cents. Mince boards, 15 inches, 40 cents; 18 inches, 48 cents; 21 inches, 60 cents. Pastry boards, 18 inches, 36 cents; 20 inches, 48 cents; 22 inches, 60 cents; 24 inches, 97 cents. Only the best grade of wooden ware can be sold in this market.

BENEFITS FROM BRITISH MUNICIPAL ENTERPRISES.

Consul H. S. Culver, of Cork, furnishes an interesting table showing the rates or taxes paid in the chief towns and cities of England.

One of the Cork papers shows the amount in the pound by which the rates have been reduced by profits from municipal services. The highest reduction is reported from Carlisle, where it amounted to 1s. 10d. Here the municipal gas made a profit of £7,050, and the waterworks £7,557 [£=$4.86; s.=24 cents; d.=2 cents]. The next highest reduction is 1s. 7¼d., at Warrington, where gas netted £14,160. In Macclesfield it was 1s. 5½d., gas clearing £5,729. At Stockport gas made £12,322, and electric light £2,000, the reduction in the rates being 1s. 3¾d., and so on. In Bolton the electric light made £5,400; in Blackpool, £4,000; in Halifax, £5,057; in Salford, £8,000; in Nottingham, £10,000, and in Liverpool, £19,740. In Belfast, where gas made £25,200, the tramways made £8,900. In Bradford the the tramways made £10,000; in East Ham, £7,020; in Kingston-upon-Hull, £10,000; in Salford, £13,000; in Norwich, £15,000; in Liverpool £25,320; in Leeds, £48,000, and in Manchester, £55,000. The rates were lowered by these municipal enterprises in no less than 80 towns and cities.

NEW ANESTHETIC.

According to a Birmingham newspaper, quoted by Consul F. W. Mahin, a new drug, called stovaine, has come into use in England and abroad, to prevent pain in surgical operations. It does not produce unconsciousness. A patient who has nerves strong enough can watch a surgeon operate while under its influence. Stovaine is injected into the lumbar region of the spinal canal and acts on the roots of the nerves entering the spinal cord. The injection produces a certain amount of shock, as well as occasional sickness and headache. How long the effect of this anesthetic will last is not stated, nor whether further injections may be made during an operation. Presumably, the duration of the effect is not great, and only one injection is deemed prudent, for a recent instance is noted of a surgeon speeding an operation to the safety limit in order to outstrip the recovering nerves.

SPAIN.

KINGDOM'S FOREIGN TRADE.

APPRECIATION OF HER CURRENCY—IMPROVEMENT IS GENERAL.

Consul-General B. H. Ridgely, of Barcelona, reports on the commerce of Spain as follows:

In 1904 there was an increase of $15,000,000 in the volume of foreign trade over the average for the five preceding years. That year was also the first since the Spanish-American war to show an excess of exports over imports, and this fact had such a material influence in increasing the value of the silver money of the country in its relation to gold that ever since the beginning of 1905 there has been a steady falling off in the percentage of depreciation of Spanish currency, a circumstance which, to a certain extent, unfavorably influenced exports in 1905. But for this appreciation of Spanish silver currency it is certain that Spain's exports would have exceeded her imports in 1905, just as they did in 1904.

The annexed table shows the imports and exports, by classes, for the two years mentioned:

Classes.	Imports.		Exports.	
	1904.	1905.	1904.	1905.
Raw materials	$79,534,182	$76,979,063	$60,006,959	$68,532,025
Manufactured articles	41,569,280	38,388,728	30,884,798	34,346,302
Alimentary substances	30,563,396	62,586,585	63,031,289	56,700,940
Total	151,666,858	177,954,326	153,923,046	159,579,267

EFFECT OF WHEAT-CROP FAILURE.

The large increase in the import of alimentary substances was due partially to the failure of the wheat crop. For the first time in the history of Spain's commerce there were large imports of wheat from India and Australia. American wheat was not pushed in this market, in spite of the fact that the customs duty on wheat and flour were reduced to a minimum. Of the raw cotton imported nearly 300,000 bales came from the United States, the value of which exceeded that imported in 1904 by $1,460,622. There was a decrease of nearly $1,000,000 in the imports of silk and its products. Wood and its products showed a decrease of $2,593,273, and machinery and machine parts fell off $1,786,747.

Flour to the value of $3,538,113, principally from France, was imported, as against $73,048 in 1904. A visible decrease is noted in the imports of manufactured articles, which amounted to $47,132,475 in 1903, $41,569,280 in 1904, and $38,388,728 in 1905. A feature of the year was the appearance of manufactured articles from Italy, such as aluminum and plated ware for household use. There was a falling off of $159,783 in the imports of agricultural machinery, due to bad crops and to the manufacture of this class of implements in Spain. In metals and their manufactures a decrease of $274,461 is noted.

The total increase in exports in 1905 over 1904 was $5,656,221. The exports of cotton goods rose from $6,859,195 to $9,205,283, woolen goods from $3,350,833 to $5,209,297, and corks from $5,695,955

to $6,271,451. In 1903 the exports of manufactured goods amounted to $29,402,108; in 1904, $30,884,798; and in 1905, $34,346,302. The exports of boots and shoes fell off from $3,385,457 in 1904 to $2,680,626 in 1905. A decrease is shown in the exports of alimentary products of nearly $5,500,000.

DETAILS OF THE FOREIGN TRADE.

The imports and exports, by classes, from all countries, and the imports from the United States, for 1905, are shown in the annexed table:

Classes.	Imports.	Exports.	Imports from the United States.
Animals and their products	$11,391,228	$11,868,648	$670,434
Alimentary substances	62,586,530	56,700,933	135,328
Cotton, and manufactures of	21,171,806	9,205,283	11,809,630
Drugs and chemical products	18,051,570	4,982,747	845,319
Machinery, vehicles, etc	12,037,229	251,503	440,670
Metals, and manufactures of	5,922,368	24,020,152	10,700
Paper, and manufactures of	2,308,061	1,816,119	.....
Silk and silk goods	3,639,305	1,466,132	.....
Special imports for railroad companies	2,226,665	.....	41,106
Stone, minerals, glassware, etc	17,557,247	34,797,731	1,084,876
Vegetable fiber, manufactures of	3,701,059	334,732	.....
Wood, and manufactures of	8,496,495	8,221,597	1,833,890
Wool, hair, and manufactures of	2,931,196	5,209,297	.....
All other goods	5,933,567	704,393	[a] 1,527,454
Total	177,954,326	159,579,267	18,399,407

[a] Includes leaf tobacco, valued at $1,422,544.

SPAIN'S BEST CUSTOMERS.

Spain's two best customers are France and England. A continuous stream of produce crosses the frontier into France, while Spanish wine growers depend almost entirely on France for the sale of red wines. France supplies Spain with silks, machinery, chemicals, fine dressed skins, china and glassware, and other articles. In exchange for ores, fruit, and wine England sends Spain large quantities of coal, machinery, woolen cloths, cotton yarns, and chemicals. Germany heads the list in the imports of chemical dyes, and has a large trade in what is called "synthetic indigo." Germany also supplies great quantities of manufactured goods, while Spain sends to Germany minerals, fruits, cork, wine, and cotton knit goods. Belgium has a good market in Spain for steel rails and other metal manufactures, besides it has secured the principal trade in linen yarns. Switzerland's trade with Spain consists of watches, condensed milk, cheese, and embroideries, in exchange for cork and wine.

The trade between Spain and the Scandinavian countries is almost confined to imports of lumber and codfish from Norway and Sweden, and of canned butter from Denmark. Spain's exports to those countries consists of wine, raisins, olive oil, fresh fruit, salt, and pig iron. Russia supplies Spain with lumber, wood pulp, hemp, wheat, and petroleum, and takes in return wine, salt, iron pyrites, pig lead, fruit, and copper ore. The imports from Italy are marble, sulphur, charcoal, and staves, while Spain's exports to that country consist of cut cork, olive oil, pressed sardines, alimentary conserves, grapes, almonds, and iron and copper ore.

Spain exported in 1905 cork valued at $6,886,393; raisins, $3,855,949; oranges, $8,552,904; olive oil, $6,250,385; common wine, $11,165,725; and grapes, $3,086,541.

RUSSIA.

COMMERCE OF EMPIRE.

EXCELLENT FACILITIES FOR IMPROVING AMERICAN TRADE.

Consul-General Ethelbert Watts, of St. Petersburg, reports that the foreign trade of Russia during 1905 does not appear to have been seriously affected by the war with Japan. He writes:

Home trade suffered greatly and all industries were frequently interfered with, causing great losses, by strikes and disorders of a revolutionary character, and some were indefinitely suspended. Vast sums of money were taken out of the country, owing to the unsettled state of affairs, and comparatively little foreign money was brought in for investment.

The greatest obstacle the American exporter had to confront was the countervailing duty imposed upon certain articles, especially machinery, but this has been rescinded, and now the United States stands on the same basis as regards customs dues as other countries. There is no reason why Russia should not be a most inviting and profitable field for American goods and for investment of capital in manufacturing pursuits.

DIRECT STEAMSHIP LINES TO AMERICA.

Almost all manufactured goods are imported into Russia, and consequently are very high in price. American goods generally are very popular, and would meet with ready sale in competition with those imported from Germany and other countries. Since the war three new lines of steamships have been established with direct sailing to American ports, largely to accommodate the increased emigration to the United States. It would seem that transportation of American goods to Russia by these companies would be sufficiently low to counterbalance the distance to be covered, as compared with transportation of goods from Germany and other nearer countries. What is urgently needed for the aid and encouragement of increased American trade is a central agency under the control of American exporters in St. Petersburg and Moscow, with perhaps branches in other cities. The goods should be exhibited by men capable of explaining everything connected with them, learning the special needs of the people, and take orders upon credits allowed by shippers from other countries.

The following articles could be imported into Russia from the United States most profitably: Machinery of all kinds, especially light agricultural machines, cutlery, furniture for domestic and office use, folding beds, roller-top desks, typewriters, soap, boots and shoes, and ready-made clothing. These and many other articles may be profitably sold in competition with German goods, which now have almost a monopoly.

SOAP AND OIL.

There are in Russia about fifty large soap factories, producing annually 250,000,000 pounds of the crudest kind of soap. To meet modern requirements 108,000 pounds of toilet, medicated, and other soaps are imported, principally from France, Germany, and England. The results of investigations made at the St. Petersburg Council Laboratory by Minister of Pharmacy Kromer disclosed dishonest practices in

the manufacture of soap in Russia to a large extent. In a large number of cases the soaps tested contained 60 per cent of water and one-third rosin instead of tallow. Egg soap contained in its composition no egg at all, but colored yellow with a mineral dye; and others called glycerine soap contained no glycerine.

During 1905 the oil business suffered greatly from fire, principally in and about Baku, caused through political disturbances, riots, and strikes. About two-thirds of these industries were destroyed, and the Government was obliged to appropriate $10,300,000 to assist in reestablishing this most important work. The production decreased greatly, but the price rose to such an extent that the business was profitable, as one company declared a net profit for the year of $1,213,340 and paid 12 per cent dividends. Other companies paid dividends as high as 35 per cent.

METALLURGY AND TEA.

About 90 per cent of the precious metal platinum is produced in Russia, and the unprecedented advance in its quotation to $14,420 per 36 pounds, or $400 per pound, being greater than the value of gold, has brought out an investigation for the cause of it. The production of platinum is practically controlled by a French company. This company owns large mines in the Ural Mountains. An English company has secured large contracts from mine owners and producers to take their output, at a stipulated price, for a term of years. The production is estimated at 23,291 pounds per annum, of which the United States in 1905 took 7,200 pounds; the United Kingdom, 6,695 pounds; Germany, 4,751 pounds; France, 4,356 pounds; and other countries, 109 pounds.

During 1905 the production of iron and other ores amounted to 209,000 tons; cast iron, 22,302 tons; steel, including rails, 85,644 tons; all other articles of iron, steel, and brass, 51,597 tons. A decrease of production was noted in coal, brass, and merchant iron, while the increase in the production of steel, including rails, was very great.

The drinking of tea in Russia is very popular, the amount consumed annually reaching 125,916,000 pounds, valued at $24,500,000. The most of the tea is shipped from China by boat to England, thence distributed over Europe. Fifteen or twenty years ago tea was largely brought overland to Russia, but little or none is so shipped at the present time.

EXPORTS GREATLY INCREASE.

The total value of the foreign trade for 1905 amounted to $809,425,000, of which $285,052,000 were imports and $524,373,000 exports, a decrease of $14,574,500 in the imports, and an increase of $32,136,000 in the exports, compared with 1904. The imports and exports, by classes, are shown in the following comparative statement:

Class.	Imports.		Exports.	
	1904.	1905.	1904.	1905.
Alimentaries	$47,792,000	$46,421,500	$316,981,000	$352,878,000
Raw and half-worked material	170,362,000	157,229,500	155,066,500	150,586,000
Animals	924,000	515,000	8,291,500	8,137,000
Manufactures	80,752,000	79,876,500	11,948,000	12,772,000

The value of the imports and exports by principal countries, for the calendar year 1905, was as follows:

Country.	Imports.	Exports.	Country.	Imports.	Exports.
United States	$20,584,035	$1,830,310	Spain	$1,211,080	$10,050,740
Germany	119,962,565	131,294,100	Turkey	2,989,320	7,945,420
United Kingdom	49,167,565	128,358,085	Sweden	1,953,095	5,886,450
Netherlands	6,330,350	65,297,880	Roumania	627,785	5,350,335
France	13,317,900	33,182,480	Norway	3,911,940	4,053,565
Italy	4,873,475	32,254,410	Egypt	4,579,380	1,434,575
Austria-Hungary	9,600,630	23,274,910	China	10,014,175	337,325
Belgium	3,737,355	22,961,790	British India	4,657,660	291,055
Denmark	2,112,530	12,027,825			

The values of the leading articles of import and export are shown in the annexed table:

Imports.	Value.	Exports.	Value.
Aluminum, etc	$7,338,800	Breadstuffs:	
Brass goods	1,704,100	Barley	$45,581,600
Cotton	34,477,200	Flour—	
Fish (herring)	7,088,500	Rye	3,496,300
Fruit	2,696,500	Wheat	4,372,400
Gutta-percha, etc	11,198,200	Maize	4,150,400
Iron and steel, manufactures of:		Oats	46,495,200
Cast iron, etc	1,750,500	Rye	23,502,500
Machinery	28,141,700	Wheat	145,123,900
All other	7,838,800	Cotton tissues	1,256,100
Leather, etc	7,679,200	Flax and flax tow	38,061,600
Paints	5,251,500	Hemp	5,105,200
Paper	6,756,300	Hides and skins	11,912,500
Silk	5,988,500	Oil, naphtha	14,297,400
Spirits	5,266,400	Ore, manganese	2,286,100
Tea	15,147,200	Provisions:	
Timber	4,566,000	Meats	1,338,500
Wool	5,834,400	Poultry	5,257,700
		Seeds	5,875,100
		Sugar	2,754,200
		Wood, manufactures of:	
		Beams	5,318,900
		Boards	23,647,300
		Wool	1,379,700

ROUMANIA.

THE STATE MONOPOLIES.

REVENUE FROM TOBACCO, SALT, MATCHES, STAMPS, AND CARDS.

Consul-General Montgomery Schuyler, jr., writing from Bucharest, states that the administration of the State monopolies, which is a part of the general administration of the Roumanian national finances, was founded in 1879 with the monopoly of tobacco.

Two years later the salt monopoly was added, followed in 1887 by matches and playing cards, in 1898 by explosives, in 1900 by cigarette paper, and in 1901 by the printing of postage and revenue stamps. The administration is controlled by the ministry of finance and managed by a committee of administration composed of nine members named for three years, and a director-general named for five years, who carries out the laws. The central administration comprises the bureaus for carrying on the monopolies, the service of cultivation, exploitation, sale, claims, and accounts. The outside services are those of (1) cultivation and of depots of fermentation for tobacco; (2) of

factories and salt works; (3) of 44 depots for the sale of products, and (4) control of the output.

The tobacco monopoly was created in 1864, when the State reserved the right of sale of foreign and native tobaccos of all qualities and forms, and of cultivation. A special authorization was necessary for its culture by private individuals, and so strong was the opposition that the law was repealed in 1867. In 1868 cultivation became free, except for a certain tax. The trade in manufactured tobacco and the exportation of native tobacco were free. This lasted until 1872, when the State once more reserved the right of cultivating, manufacturing, and selling tobacco throughout the country. This monopoly was given to an English company for fifteen years, divided into periods of five years each, with an increase of 20 per cent on the payments of the company to the State for each period.

PRIVATE TOBACCO MONOPOLY UNSATISFACTORY.

From 1872 to 1877 the company paid the State $1,620,000 a year for the monopoly. It decreased the amount of land under cultivation and limited it to certain districts. The average was not more than 6,750 acres, producing about 3,750 tons of tobacco. During the first two years the company lost $800,000, but in 1875 it made $200,000, and in 1876 only $28,600. There were many complaints from the consumers about the inferior quality and cost of the tobacco. In 1878 the company gave up its contract and sold out to the State for $727,741. In 1880 the present administration was organized under a new law.

Each year in October the administration gives notice by advertising of the districts in which cultivation of tobacco for the next year will be allowed, the area which may be cultivated, and the price which will be paid for each quality. Any person wishing to grow tobacco applies to the mayor of his district and the administration signs a contract with him if the conditions are satisfactory. The amount of land to be cultivated is fixed and must be sown with seed, which the administration supplies free. It also decides which variety of tobacco may be grown in each region. Any variety not allowed is destroyed, and if any is found later the cultivator is fined and his contract annulled.

The cultivation of tobacco commences in the month of March, when the seed is sown in the open ground and carefully covered during cold weather. When the plants have 5 or 6 leaves they are replanted in rows 20 to 30 inches apart and 8 to 16 inches between plants. When the seeds appear they are pulled off, with the exception of those left for seed. When the leaves begin to get dry and yellow the picking commences from the bottom up. As the best leaves are those which get yellow the slowest, delay is encouraged by cutting and pinching certain parts of the plant. The leaves must be gathered in dry weather and in the evening. They are taken to a dry place and pressed with their tips free for from twelve to twenty-four hours, in which time they commence their first fermentation. They are then hung up in the air for a more rapid drying. Every day the agents of the administration check up the number of bundles hung up.

CAREFUL GOVERNMENT MANAGEMENT.

Along with the gathering and drying the agents of the administration weigh the crop in the presence of the mayor of the district and receipts are exchanged. Every bundle missing is estimated at $1.20,

which is deducted later from the payment to the cultivator. Ten per cent loss on the first weight is allowed at the time of delivery to the administration in November and December, and for every pound less than that a fine of 40 cents is exacted. Delivery is made in the presence of the cultivators, where each bale is opened and weighed after a careful examination and classification of the tobacco. The amount to be paid the cultivator is then finally settled.

Three varieties of tobacco are grown in Roumania, two of which, the Persicean and Iaka, were brought from Macedonia and the third, Samsun, from Asia Minor. The seed for the Iaka is imported each year from Macedonia. Experiments are being carried on with tobacco from Hungary and Herzegovina with fairly good results. There are experiment stations in various parts of the country with a view to bettering the quality of the tobacco grown and to introducing new varieties. The cultivation of tobacco is also helped by the administration in a number of ways, as by the establishment of funds for the help of the cultivators by lending sums of money varying from $40 to $120 for the construction of drying sheds and storerooms, by annual prizes of cattle, machinery, fruit trees, money, and by making good any losses by hail or fire. Cultivators are also able to obtain the materials and implements necessary on the installment plan. During the last year the administration has started an experiment station at Bucharest with a library, laboratory, and trial fields. A bulletin is published every month giving the results of the experiments made and articles on the cultivation.

FERMENTATION DEPOTS—FOREIGN PURCHASES—MANUFACTURING.

The dried tobacco delivered by the cultivators has to be fermented in order to acquire the aroma and special properties for smoking. This takes place in the spring of the year following the gathering in separate sheds. The best qualities of tobacco receive particular attention, while the inferior sorts are fermented in masses. During the process the temperature goes up to about 90° or 100°, gas being created, the disappearance of which indicates the end of the operation. The leaves are then packed in bundles weighing some 65 pounds and sent to the central depot in Bucharest, where they are kept until sent to the manufactories. There are six fermentation depots.

The total amount of the raw tobacco used in Roumania is 4,250 tons, valued at $1,120,000, of which 625 tons, costing from $400,000 to $600,000, is imported. Some 80 per cent of the latter comes from Macedonia and Asia Minor, and 125 tons from America, Sumatra, Java, Japan, and Hungary. The purchases are made by open bidding from samples presented by the sellers.

When the tobacco from the fermentation depots arrives at the factories it is sorted with care and the different qualities are mixed in the proper proportions. In 1905–6 the output was 35,957 tons of smoking tobacco, 264,000,000 cigarettes, 11,625,000 cigars, 207 tons of snuff, and 559 tons of liquid tobacco for insecticides. The total value was $8,300,000. The net revenue of the monopoly for the last year of which the statistics have been published was $5,681,310.

FOUR OTHER MONOPOLIES.

The material necessary for the manufacture of matches costs $50,000 annually. The matches are sold by the tobacco dealers, who receive a

discount of 6 per cent from the monopoly. The sale of matches amounted last year to $620,871, and the net revenue was $404,410.

There are only two styles of playing cards—one 40 and the other 80 cents a pack. The latter are of two kinds, those for sale and those for the use of clubs. All are printed abroad. The cards for clubs are sold directly to them, but the others are sold by the tobacco dealers, like matches. The gross revenue from cards was $110,930 in 1904–5 for 170,353 packs, 63,379 at 40 cents, and 106,974 at 80 cents.

Dynamite and powder for mining are sold directly by the administration, but sporting powder is sold by the dealers in tobacco, to whom a reduction of 6 per cent is made. The gross revenue from the sale of explosives in 1905–6 was $100,301, and the net revenue in 1904–5 was $59,995. The revenue has lately been decreasing each year, owing to the reduction in the price of sporting and mining powder.

The sale of cigarette paper and of all products necessary for the manufacture of cigarettes is a State monopoly. The cigarette paper is imported from France, and the manufacture of cigarette mouthpieces is done at Bucharest, where it employs about 100 workmen. In 1905–6 the sale of the mouthpieces and wrappers amounted to $896,612.

The revenue from the State monopolies constitutes to-day more than one-fourth of the total revenue of Roumania. In 1905–6 the total revenue of the State was $54,600,000, the monopolies giving $11,400,000. The revenues of the monopolies have steadily risen with the addition of other monopolies from $1,847,400 in 1872 to $11,400,000 in 1905–6. The net profits were $7,516,311 for 1904–5.

SERVIA.

FOREIGN MERCHANDISE USED.

AGRICULTURAL, HEATING, AND ELECTRICAL APPLIANCES IN DEMAND.

M. K. Moorhead, consul at Belgrade, reporting on the trade of Servia for 1904, the last year for which figures were available, lays stress upon the fact that an opportunity is being offered to American makers of agricultural implements, stoves, electrical appliances, and general hardware. He writes:

Farming is the chief industry of Servia, and the United States should have a share in supplying all kinds of agricultural implements. Reaping machines worked by horsepower should find a good sale here. Servia imports about $250,000 worth of agricultural implements yearly. There is a chance to sell stoves, as all buildings are heated by stoves, with wood or coal for fuel. Austria has built up quite a trade in iron and porcelain stoves lined with fire brick. There is no reason why some American firms should not be able to do considerable business in this line. Iron stoves lined with tile or brick, having fuel-saving appliances and artistic in shape, would find a ready sale here.

ELECTRIC APPARATUS AND MINING MACHINERY.

Belgrade and many of the smaller towns are lighted by electricity. As in most other things, the chief source of supply is Austria-

Hungary. That the United States can compete successfully in this market is shown by the following example: A few weeks ago I took a trip into the interior of Servia to the city of Valjevo, situated 100 miles from the nearest railroad. There I discovered an electric plant fitted out with American machinery. The owner of the plant told me that American electrical goods gave entire satisfaction and were much better than German or Austrian apparatus.

There should be, during 1907, a good market for all sorts of mining machinery, as many new mines are about to be opened up. Several Englishmen are now in Belgrade looking after mining concessions. Mr. J. R. Finney, of Valjevo, Servia, expects to soon start work on a copper mine and will need some machinery.

TRADE WITH AUSTRIA-HUNGARY.

Servia, on account of its geographical position, is almost entirely dependent upon Austria-Hungary for the greater part of its foreign trade. Out of a total exports of 12½ million dollars over 11 million were in 1904, to Austro-Hungary, or nearly 90 per cent; and over 7 million dollars of imports, out of a total of 12 millions, came from Austria, or 60 per cent. Her exports consisted chiefly of cattle, pigs, poultry, cereals and other agricultural products, while the imports were made up mainly of manufactured goods.

These figures, however, are not exact, as some United States goods are bought through Vienna brokers and thus put down as imports from Austria. The same may be said of exports to America, as all the purchases of Servian goods, by American importers, were made through a Budapest exporter and not bought direct from Servians.

COMMERCIAL MUSEUM.

The Austro-Hungarian Government maintains in Belgrade a commercial museum where are exhibited the products and articles manufactured in the dual Empire. Any firm of Austria or Hungary can exhibit its goods, provided it pays a small membership fee and a certain per cent on all sales made through the museum. A competent salesman is in charge of the museum. He not only takes orders but attends to the delivery of the goods, including clearance through the custom-house, and collects the accounts for the exporters.

Besides this there is a private concern in Belgrade, called the Servian Industrial Bank (Serbische Industriebank), which does just about the same work as the museum, except that it does not have a showroom. This bank acts as agent for Austrian, German, English, and French firms. It would help American trade in this part of Europe if a museum, such as the above, could be established either by the Government or by a group of exporters in the capital of each country.

EFFORTS TO ASSIST AGRICULTURAL DEVELOPMENT.

There are, in addition to the experimental farms at which instruction in agricultural subjects is given, three agricultural schools in Servia, as follows: (1) School of general agriculture at Kraljevo; (2) school of viticulture and arboriculture at Bukovo; (3) school of agriculture at Sabac. Near Belgrade the Government has a model farm on which the best methods of farming are shown to the peasants and experiments are made as to the best grains, etc. In 1902 an experimental farm was established at Dorbricevo for the purpose of breeding animals. The Government gave 1,000 hectares for this farm.

After the almost total destruction of the vineyards by the phylloxera in 1882 the Government established vineyards in order to restore this industry by experimenting. There were in 1905 six of these experimental vineyards. A considerable quantity of vines are given gratis to the cultivators, and those vineyards that resist the phylloxera are exempt from taxes for ten years. In the autumn of 1904 and spring of 1905 there were delivered 6,829,005 feet of vines to different cultivators. There are also schools in connection with these State vineyards for instructing cultivators how to resist the phylloxera, etc.

DAIRY FARMS.

In 1903 Mr. M. Draskovitch, having received a subsidy from the Government, started the manufacture of cheese in the village of Smederevo (Semendria) near Belgrade. Three grades of very excellent cheese are made, viz, Zarich or Imperial, a soft cheese somewhat like American cream cheese; Dounovatz, a hard cheese; and Godomine, a Trappiste cheese, commonly called Semendrian. This last is by far the best Servian cheese. It resembles Swiss cheese, but is finer in texture. At this dairy special courses of instruction are held each year. To these the State sends young men to learn the manufacture of butter and cheese by practical work and study.

[Consul Moorhead's report contains names of Belgrade's hardware dealers, which are filed with the Bureau of Manufactures for use of business men concerned.]

AUSTRIA-HUNGARY.

COUNTRY'S FOREIGN COMMERCE.

YEAR OF GREAT PROSPERITY—TRADE WITH THE UNITED STATES.

Consul-General W. A. Rublee, of Vienna, transmits the following report on the foreign trade of Austria-Hungary:

As compared with many other countries Austria-Hungary's figures of imports and exports in 1905 made a poor showing, though the trade balance was some $11,000,000 more favorable than in 1904. The crops in 1905 were excellent, the yield of cereals being greater than the average for the preceding ten years. The total value of the grain crop exceeded that of 1904 by about $4,000,000 and was approximately $36,000,000 greater than the average value for the past decade. The sugar production exceeded that of all previous years. The beet crop was not only large, but the quality was excellent. The very large production affected the price of raw sugar, which fell almost 50 per cent.

The increased cost of production in many branches of industry, caused partly by the higher price of raw material and also by the general demand for better wages, affected the industrial advance unfavorably. In the cotton, wool, jute, leather, and paper industries these adverse influences were especially noticeable. The iron and machine and the electro-technical industries experienced a prosperous year.

The total imports in 1905 amounted to $429,226,662, a gain of $19,646,483 over 1904. The exports aggregated $448,775,902, an increase of $31,042,183 over the previous year. The leading articles

of import were cotton and cotton goods, valued at $47,393,294; animal products, $27,206,397; breadstuffs, etc., $25,110,579; base metals and manufactures, $18,815,904; fruits, vegetables, etc., $21,228,499; silk and silk goods, $16,872,164; machinery and parts, $12,682,215; clocks, instruments, and fancy goods, $14,374,363; cattle, $10,521,008; wood, coal, and peat, $24,217,456, and wool, $38,426,627. The chief exports consisted of wood, coal, and peat, worth $68,260,586; animal products, $38,723,740; sugar, $37,844,467; grain, leguminous plants, flour, etc., $33,301,311; cattle, $29,783,924; wool and woolen goods, $20,763,771, and leather and manufactures of, $13,163,739.

The principal countries from which imports were received and to which exports were sent in 1905 are shown in the annexed table:

Countries.	Imports.	Exports.	Countries.	Imports.	Exports.
United States	$40,740,000	$10,600,000	Brazil	$9,580,000	$4,352,000
Germany	160,600,000	204,400,000	Turkey	8,840,000	18,900,000
United Kingdom	31,420,000	39,900,000	Roumania	7,740,000	16,200,000
Russia	27,600,000	13,060,000	Belgium	7,340,000	4,360,000
British India	24,980,000	13,700,000	Egypt	5,520,000	7,520,000
Italy	21,340,000	32,300,000	Netherlands	4,820,000	6,720,000
France	13,700,000	14,200,000	Greece	4,160,000	3,320,000
Servia	13,700,000	6,060,000	Bulgaria	2,640,000	5,600,000
Switzerland	11,640,000	17,980,000	China	1,520,000	1,340,000

The trade with the United States aggregated $51,340,000, of which $40,740,000 were imports and $10,600,000 exports, an increase of $4,248,000 in imports and $2,440,000 in exports compared with 1904. The part taken by the United States in Austro-Hungarian trade in 1905 is shown by the following tables:

IMPORTS.

Articles.	Value.	Articles.	Value.
Asbestos	$325,800	Nails, wooden	$116,600
Copper	4,826,400	Oil:	
Cotton	21,465,400	Cotton-seed	1,578,600
Cotton waste	142,000	Mineral	385,600
Fats	3,868,800	Pitch and resin	652,200
Grain	1,678,800	Rubber goods	93,600
Hides and skins	100,000	Timber	174,000
Horses	40,400	Tobacco	912,400
Instruments	442,200	Turpentine, etc	93,000
Lead and alloys	49,600	Vitriol, copper	187,800
Leather	410,000	Other articles	2,080,600
Machinery and parts	726,800		
Minerals	389,400	Total	40,740,000

EXPORTS.

Art and literary objects	$137,400	Mineral water	$178,200
Beer	241,000	Musical instruments	237,100
Cellulose	135,200	Plants	238,800
Chemicals	195,200	Porcelain	687,000
Fancy goods	312,200	Rubber goods	246,000
Furniture	162,600	Skins	926,200
Glassware	689,400	Sugar	176,400
Glass bottles	213,800	Wooden ware	157,000
Hair	196,200	Wool	241,000
Hops	627,400	Woolen goods	196,800
Iron and steel	319,600	Other articles	2,383,600
Linen goods	1,012,800		
Minerals	688,800	Total	10,600,000

TRADE WITH THE UNITED STATES.

The imports of goods into Austria-Hungary from the United States are not covered accurately by the figures obtained from the customs-house officials. American firms in many cases place their export business in the hands of English and German agents, who control the sales of the entire Continent. American goods are often credited to these countries in the official statistics when they should be charged to the country of origin. As an example: The amount of leather imported into Austria-Hungary from the United States during 1905, as reported by the Government officials was valued at $410,000 while well-informed Austrian dealers assert that the amount was between $4,000,000 and $5,000,000. This discrepancy is said to be due to the shipments of American leather direct from England and Germany.

It is a mistake to leave the introduction of American goods in the hands of agents in other countries who are not close enough to the Austrian people to understand the requirements for successful trade. It is necessary to make considerable effort to get good results and the foreign representative of American interests does not as a rule take in the situation when he is in London, Berlin, or Hamburg, as he would if he were on the ground in Austria and dependent for his sale upon the canvass he made for the trade. The American manufacturer and exporter needs to come in closer contact with his Austrian customer. American buyers are to be seen quite often, but American salesmen are seldom seen, though they are reported as visiting neighboring European countries.

There are many commodities produced in the United States that would meet with ready sale in Austria-Hungary if they were only introduced, and especially if they were put on the market directly without passing through other hands.

EARTHENWARE TRUST.

Consul John S. Twells, of Carlsbad, reports the formation in Austria of a trust in the earthenware line. Twelve factories have joined the trust. Among them are Wienerberger Ziegelfabrik, Florisdorfer Tonwarenfabrik, Lederer & Nessenyi, Erste Schättauer Tonwarenfabrik, Westboehmische Kaolin and Chamottewerke, Karlsbader Kaolinindustriegesellschaft and the Kaolinwerke Aktiengesellschaft in Zettlitz near Carlsbad. It is reported that the Vienna Laenderbank intends to establish a branch office at Carlsbad for the purpose of establishing a trust in china goods.

BELGIUM.

BUSINESS AT BRUSSELS.

COMMERCE AND INDUSTRY BOTH SHOW GREAT PROGRESS.

Consul-General G. W. Roosevelt reports that the foreign trade of Brussels in 1905 amounted to $11,190,981, viz: Imports, $6,249,598, and exports, $4,941,383, an increase of $1,412,892 in imports and $304,990 in exports over 1904. The following comparative statement shows the leading imports and exports:

Articles.	Imports.		Exports.	
	1904.	1905.	1904.	1905.
Alimentary conserves	$60,315	$124,112	$923,837	$10,559
Automobiles and parts	63	7,976	66,938	119,100
Beer	233,287	270,631	51	740
Brass and copper	231,151	130,818	18,954	6,300
Breadstuffs:				
Barley	182,478	153,852	37	33
Flour, all kinds	208	1,685	293,091	556,124
Wheat	80,445	186,177	.....	.....
All other	22,406	14,695	29,459	26,833
Coal and coke	544,534	548,424	17,358	8,764
Dyes and colors	20,837	33,083	233,974	334,044
Glass:				
Plate	165	1,138	1,200,106	673,971
Window	2,267	329	96,146	139,999
All other	205	6,761	16,241	3,310
Grease	155,080	93,680	155,354	88,239
Hides and skins:				
Raw	234,769	369,391	33,378	42,307
Tanned	106,032	364,613	9,915	23,656
Iron and steel, and manufactures of:				
Ore, iron	232	9	23,149	113,227
Hardware, etc	21,211	30,048	456,887	610,686
Machinery and tools, etc	75,078	97,540	10,857	32,803
Mineral ore	134,603	192,441	2,315	201,869
Oil, all kinds	150,836	124,330	85,024	56,951
Provisions	378,620	274,532	5,912	26,413
Rags	178,150	288,174	903	519
Rosin and bitumin	54,924	93,176	12,775	34,763
Rubber, crude and manufactured	112,849	164,920	9,520	60,954
Stone, all kinds	223,729	452,116	347,095	252,604
Tinware	2,107	60,140	.....	44
Tobacco, cigars, and cigarettes	171,069	107,236	.....	11,369
Vegetables, preserved	27,269	129,012	.....	43,824
Wood, and manufactures of	127,891	60,664	36,158	5,380
Wool	.....	115,664	43,184	57,146

The declared exports to the United States during the calendar year 1905 amounted to $3,678,565, an increase of $518,078 over 1904. The leading articles were: Cement, valued at $90,126; coke, $68,484; corsets, $78,689; plate glass, $643,949; window glass, $58,434; gloves, $98,749; glue and glue stock, $97,214; horses, $130,219; cotton lace, $211,355; linen articles, $569,981; rags and cuttings, $64,553; skins, raw, tanned, and dyed, $773,408; and preserved vegetables, $50,275.

The exports declared for the United States from the Charleroi agency for the calendar year amounted to $1,404,519, an increase of $301,063 over 1904. The principal articles were: Plate glass, valued at $558,735; window glass, $644,152; steel sleepers, $44,901; structural steel, $33,756; and marble, $22,654.

GROWTH IN COMMERCE.

The comparative table of special commerce for the first ten months of 1905 and 1906 shows a decided increase. Importations for the first ten months of 1906 show in value a total of $493,933,619 against $460,813,555 for the corresponding period of 1905, an increase of $33,128,064, or 7.2 per cent. Exportations for the same period were in value $237,845,535 in 1905, and $386,516,874 for 1906, an increase of $48,671,319, or 14.4 per cent.

In tonnage there was a gain of 1,228,403 tons, or 12.9 per cent in entries, and of 1,274,264 tons, or 13.4 per cent in clearances.

ANIMAL INDUSTRY.

MEATS AND MEAT PRODUCTS.

DECREASED EXPORTS OF CANNED PRODUCTS.

FIRST NINE MONTHS OF LAST YEAR REVIEWED—CONDITIONS IN VARIOUS FOREIGN MARKETS.

The export of meat products from the United States for the first nine months of 1906 made extensive gains over previous years in practically all lines except canned meats. The foreign sales of the latter, with comparisons of the same periods of the previous two years, were, according to figures of the Bureau of Statistics, as follows:

	1904.	1905.	1906.
Canned beef	$3,325,208	$5,178,627	$3,060,983
Canned pork	651,428	685,770	498,955
Other canned meats	1,420,501	1,424,886	972,811
Total	5,397,137	7,289,283	4,532,749

The real loss in the American canned-meat trade abroad has not been so heavy as would appear from the above statistics. The purchases of Japan from the United States for the first nine months of 1905 in canned beef alone amounted to $1,307,415, nearly all for armies in the field. The Japanese purchase of this line of goods for the same period of this year were only $9,820. Thus with the deduction of the Japanese item the net loss of the American canned-meat trade for 1906, up to September 30, amounts to $1,458,939. As will be seen by the statistics for the nine months' periods which follow, the sales of American canned beef are increasing greatly in Germany, Central America, and South Africa:

Country.	Canned beef.			Other cured beef.		
	1904.	1905.	1906.	1904.	1905.	1906.
United Kingdom	$2,255,855	$2,909,728	$1,839,765	$671,072	$948,576	$1,029,555
Belgium	44,639	51,302	35,164	93,302	103,070	108,940
France	29,345	53,697	97,979			
Germany	91,032	67,218	143,469	310,815	472,459	888,307
Netherlands	26,942	25,218	28,970	42,558	50,024	41,400
Other Europe	94,142	116,220	61,101	177,056	216,408	256,940
British North America	58,148	47,219	40,270	244,326	303,241	317,849
Central America	14,480	19,891	49,062	40,228	59,823	93,159
Mexico	15,623	30,518	19,074			
Cuba	5,898	13,009	13,816	259,121	299,696	311,596
Other West Indies	86,247	32,142	24,361			
South America	27,517	26,829	35,974	133,139	164,589	192,006
Chinese Empire	13,923	104,308	43,871			
Japan	106,571	1,307,415	9,820	136,763	232,979	141,778
Philippine Islands	12,888	30,984	55,251			
Other Asia and Oceania	36,505	32,560	81,896			
British Africa	376,524	272,003	386,463	44,287	27,516	45,913
All other Africa	78,629	38,127	94,446			
Other countries		239	201	9,954	9,925	11,388
Total	3,325,208	5,178,627	3,060,983	2,162,621	2,888,306	3,435,831

	Bacon.			Hams.		
	1904.	1905.	1906.	1904.	1905.	1906.
United Kingdom	$15,356,296	$15,482,300	$24,664,514	$13,649,448	$15,088,467	$13,929,549
Belgium	711,323	1,112,994	1,787,447	531,693	405,968	302,289
France	29,115	2,140	8,106			
Germany	373,901	856,350	803,143	16,787	57,103	76,269
Netherlands	190,265	583,474	755,050	50,385	84,358	102,977
Other Europe	924,463	771,247	1,216,060	140,204	119,980	148,309
British North America	252,037	161,142	225,990	218,790	272,096	421,606
Central America	21,710	8,117	19,946	32,567	56,443	79,788
Mexico	30,527	28,453	35,447	68,891	90,594	73,740
Cuba	288,752	314,554	373,669	331,392	347,775	404,990
Other West Indies	15,026	23,495	20,736	129,299	103,441	121,317
Brazil	60,271	78,884	128,096	[a] 26,241	[a] 23,397	[a] 30,936
Other South America	17,221	11,218	9,181	29,858	39,227	52,954
Chinese Empire	12,352	10,674	5,741	16,047	18,470	6,304
Philippine Islands	9,862	108,335	98,222	10,785	23,908	19,895
Other Asia and Occania	39,030	9,651	10,655	13,004	12,168	11,504
British Africa	13	1,813	10,759	39,816	7,832	10,146
All other Africa	2,449	967	2,961			
Total	18,334,613	19,565,808	30,175,723	15,305,202	16,751,827	15,792,073

[a] Venezuela.

For the nine months' periods in question exports of other meat products from the United States were as follows:

	1904.	1905.	1906.
Pork:			
Canned	$651,428	$685,770	$498,955
Fresh	884,771	899,643	843,502
Salted or pickled	6,430,064	7,955,693	9,071,000
Total fresh and salted	7,314,835	8,855,336	9,914,502
Lard	32,009,778	38,231,452	45,884,517
Lard compounds	2,527,008	2,933,866	3,220,597
Tallow	2,123,557	2,537,189	4,083,029
Oleomargarine	498,776	570,645	749,954
Oleo oil	9,387,870	10,324,994	13,496,806
Fresh beef	18,424,546	17,058,499	18,511,261
Poultry and game	974,930	711,832	1,345,873
Mutton	84,881	39,148	39,629
Sausage and sausage meat	491,937	595,675	758,678
Sausage casings	1,657,509	1,878,653	1,980,360
Other meats:			
Canned	1,420,501	1,424,886	972,811
All other	1,414,812	1,955,800	1,722,586

The total foreign sales of meat products of the United States for the nine months ended September 30 amounted to $155,644,168, against $132,188,313 for a like period of 1905, and $118,060,012 for 1904. American bacon steadily finds greater favor abroad, the sales in 1906 to September 30 having been $30,175,723, against a comparison of only $19,565,808 in 1905. Lard and salt pork made like progress, while there were excellent gains nearly all along the line.

The Bureau of Manufactures has addresses of meat dealers and importers in many lands. These will be furnished to all American exporting firms who apply for them.

CONDITIONS IN FOREIGN MARKETS.

One of the principal meat-packing companies of the West recently sent out a circular to consular officers in which a number of interrogatories were propounded in relation to present conditions and future prospects of the canned-meat trade in their respective districts. A

large number of replies were received, from which the following are taken:

GREAT BRITAIN.

INCREASING TRADE OPPORTUNITIES.

Consul D. W. Williams, writing from Cardiff, says that the United Kingdom is the best foreign market in the world for American meats, for the demand, which is already great, must continue to grow. The consul continues:

In the first place, the demand must increase naturally on account of the increase in population, which is growing at the rate of over 400,000 a year in spite of emigration and a decreasing birth rate. It is growing also because, owing to the rural exodus to the towns and a resultant betterment of conditions, there is a further proportional increase in meat consumption.

On the other hand, there is not a corresponding increase in the number of live stock, a fact made plain by the following comparison:

Live stock.	1891.	1905.
Cattle	4,870,215	5,020,936
Sheep	17,874,722	14,698,018
Hogs	2,461,185	2,083,226
Total	25,206,122	21,802,180

There has been a small increase in the number of cattle, due chiefly to the enormous increase in the demand for milk, but the decrease in the number of sheep is marked, and it has occurred among the heavier kinds, for the smaller Welsh sheep are more numerous than ever. There has been, then, an actual loss since 1891 of 3,403,942 head of live stock. In other words, the British people have actually eaten 12 per cent more than the increase of their herds, flocks, and droves in fifteen years. This disappearing of the native live stock must continue, for the causes are of long standing. Sheep are giving way to deer in parts of the island, while the increase in truck farming, the utilization of farm lands for building purposes, garden cities, park systems, arenas, and links for sports, game preserves, and other purposes are curtailing the pasture lands of the Kingdom.

In the second place, the British people have already learned to like American meats. This is revealed by an ingenious calculation made by the statisticians of the board of agriculture, which shows that the meat imports have grown from 5.9 pounds per capita in 1860 to 46.7 pounds per capita in 1905. It is true that foreign meats are cheaper than the native article, but it is also true that the best American meats are superior to anything produced in the Kingdom, excepting the Welsh mutton.

SUPERIOR AMERICAN PRODUCTIONS.

When the meat scandals were made public last summer, many British papers exploited them and very exaggerated statements were published broadcast. This was due to national rivalry, a natural prejudice which springs up between competitors, and, above all, to the commercialism of the penny press. But when, a few weeks later, the more

reliable journals began to expose the meat scandals of the home market a reaction set in, and the cablegram of the President to the retail grocers of the Kingdom assisted materially in restoring confidence in American meats.

When it is remembered that all sorts of meats are exposed in the British markets, that all the organs of live stock can be bought in some shops, that rabbits are eaten every month in the year, that ice is used most sparingly in all shops, that game is kept until it is "high," and that the odor emanating from many shops during the summer months is very peculiar, to say the least, a prejudice against American meats can not live long. Notwithstanding the general hue and cry against canned meats the American article has come out comparatively unscathed from all tests made. For instance, in Stepney, where an average of one ton a day of tinned goods have been condemned for five years past, only a very small quantity of American meats were included. Indeed, the sudden falling off in the sale of canned goods during the summer was due as much to English exposures as to the news from America.

THE WELSH TRADE.

These general observations apply to Wales as well as England, but the following are confined to Wales: For many years past there has been a very large sale of corned beef, brawn, tongue, and lard in the principality, America having a monopoly of the canned-goods market. Wales and Monmouthshire have a population slightly exceeding 2,000,000, of whom more than 200,000 are miners and quarrymen; about 15,000 are tinplaters, and over 5,000 are steel workers. Such laborers must have meats, and the American goods have been a blessing, especially for the poorer classes. The meats imported into Cardiff direct rose from 98,103 hundredweight in 1901 to 128,792 hundredweight in 1905, but this gives no idea of the trade, for the reason that the great bulk of canned goods are brought into Wales from Liverpool and London. The only line of ships importing directly from the United States is the Lord Line, running to Baltimore and Quebec.

Dealers in various parts of north and south Wales have been interviewed during the summer, and without an exception they have stated freely that only a very small per cent of American canned goods have ever been returned as unfit for use. One dealer has goods nine years old on hand which are still wholesome. They were not sold on account of the careless wrapping or pasting of the paper labels. When the papers published the exposures the sales fell off rapidly, notwithstanding the good reputation of the meats, but, oddly enough, American lard was not materially affected. It has a monopoly of the Welsh market, the only considerable competitor being Irish lard put up in bladders.

PRESENT MARKET STATUS.

In two days twenty-three meat dealers in Cardiff have been interviewed. The consensus of opinion is that the exposures were much exaggerated in the British papers, that American meats are uniformly good, that the prices are lower, that the profits to the grocers are higher, that the sale of corned beef, brawn, and potted meats has not improved much since the exposures, that tongues are going much better, that lard has almost regained its normal sale, that British labeled meats sell more readily than before, but that confidence in American goods is gradually returning. Some seem to think that much extract

has been taken out of brands of brawn, that some shippers are careless about the packing of their canned goods, and that Australians are sure to profit from the bad luck of the Americans. Others seem to think that judicious advertising, the furnishing of free samples, and the expression of confidence on the part of grocers will soon restore American meats to their former position. There is every reason to believe in view of local conditions in Wales that guaranteed meats of good and fine grades will soon win back the confidence of the people. The Armour, Libby, and Fairbanks brands are now the most popular.

IMPROVED OUTLOOK IN ENGLAND.

Consul Edward B. Walker, at Burslem, took considerable pains to ascertain the true condition in that part of England, and reports as follows:

I find what one prominent dealer describes as a "slump" in the American canned-meat trade. He has a large stock of these goods on hand, but appears hopeful, and says that conditions will be better as soon as "confidence is restored." He says that years ago he did a good business in handling a certain line of Chicago goods, but that the demand for them fell off, this being due, in his opinion, to lack of effort on the Chicago firm's part, contrasted with efforts made by the manufacturers of another leading brand, resulting in the one name being kept before the public and the other not. While he said that some Chicago products will not sell here, yet he was emphatic in saying that under normal conditions American meat packers can get business here if they will come after it. In this connection he strongly advocates the sending out of good representatives.

Referring to the trade in bottled goods, pickles, etc., he said that there was an excellent field here, and mentioned particularly the great business built up in this section by one American company. In addition to conceding great merit to the goods, he gave great credit to this company's representatives, whom he characterized as the "brightest salesmen" he had ever seen.

DEAD-MEAT IMPORTS.

Consul F. W. Mahin writes from Nottingham that twenty-five years ago in October the first cargo of fresh meat killed abroad was landed in Great Britain:

It came from Australia, the carcasses of 100 cattle and 4,000 sheep, "preserved by freezing by the dry-air process," as stated in a report made at the time. The shipment was an experiment, but the meat was found in perfect condition on arrival; and importations steadily followed thereafter until they have grown to vast proportions. During the first nine months of this year, in round numbers, 350,000,000 pounds of refrigerated mutton, valued at $30,000,000, and 430,000,000 pounds of refrigerated beef, valued at $35,0..0,000, have been imported by Great Britain. The statistics at present available do not show the proportions contributed by different countries, but most of the beef came from the United States and probably most of the mutton from the British Pacific colonies.

One huge British meat corporation which has more than a thousand retail shops in the United Kingdom—twenty in Nottingham alone—deals exclusively in American beef and New Zealand mutton, all

refrigerated. Though this meat is brought from thousands of miles overseas, it is retailed at several cents a pound less than the corresponding kinds of British meat. Prices of the latter are from 20 to 30 cents a pound, according to the cut and quality; of the imported refrigerated meat, from 12 to 20 cents. One might suppose that the imported meat would entirely supplant the native; but many consumers have a prejudice against refrigerated meat, others believe that no beef or mutton equals that fed on British pastures, and others are ruled by patriotic motives. Consequently, the shops selling British meat are far more numerous, despite the higher prices, than those selling imported chilled meat.

As another phase of this subject, a British authority notes that the importation of dead meat instead of live aids in keeping out of the country dangerous and contagious animal diseases, and thus incidentally performs an important sanitary mission.

GERMANY.

HIGH RANGE OF PRICES.

Consul-General T. St. John Gaffney reports from Dresden that the Berlin Butchers' Union recently held a protest meeting against the inflated prices of meat. He writes:

Chairman Schmidt said that the German cattle raisers had not fulfilled their promises to bring the production of cattle for slaughter into harmony with the increase of population. The cattle industry was being damaged by their proceedings, financial failures seemed to be the order of the day, and existing business to have fallen off considerably. A cattle raiser had recently stated that one could estimate pigs for slaughter at 7 cents per living pound weight. There were no first-class cattle at all, or at least such were only obtainable at preposterous prices. As their representations to the German Government were fruitless they would now appeal to the people and call on them to help in the fight against the inflated meat prices. A resolution was adopted protesting against the restriction of import, as this was considered to be the cause of the rise in prices. The feeling is gradually gaining ground that worse is still to come, owing to the restrictions placed upon the importation of foreign cattle.

Statistics show that a decrease in German meat consumption of over 22 pounds per head has taken place between 1901 and 1905, and that the annual consumption in 1905 was about 100 pounds. In spite of the decreased consumption, the higher prices prevailing at present would necessitate an annual expenditure of $14.80 more than in 1901 for a family of 5 persons. The writer appends herewith a list of the prices paid by him personally for different supplies in Dresden: Pork and mutton chops, 28.5 cents per pound; roast beef, 45 cents per pound; veal cutlets, 40 cents per pound; ham, 40 cents per pound; bacon, 40 cents per pound; steak, 35 to 40 cents per pound; chicken, 40 to 50 cents per pound; turkey, 36 cents per pound; goose, 35 cents per pound; butter, 33 cents per pound; eggs, 2.3 to 2.8 cents each.

COMPARISON WITH OTHER EUROPEAN CITIES.

Consul T. J. Albert discusses the present aspect of the meat question in Germany in the following letter from Brunswick:

The meat famine increases. A comparison shows that the prices for meat are considerably lower in all other countries of Europe. While

a pound of beef per hundredweight (centner) price costs 86 pfennig, or 20 cents, and a pound of pork 71 pfennig, or 17 cents, in Berlin, the corresponding prices in Copenhagen are 14½ and 13 cents; in Vienna, 16½ and 14 cents; in Rotterdam, 16 and 13 cents; in London, 15 cents; and in Paris, 14 and 16 cents. Consumption of meat per head of population has decreased in Germany. In Nürnberg in 1892 it was 144 pounds per head, while in 1905 it was only 117 pounds per head. Statistics of the cattle slaughtered show that this decrease is general throughout Germany.

Poultry has also considerably advanced in price. While formerly the price of a goose per German pound (a tenth more than an American pound) averaged 15½ cents, it is now 18 to 21½ cents. This increase has lead to a large importation of slaughtered geese from Russia, which can be sold for the former price of 15½ cents per pound, but the complaint is made that these geese are of an inferior quality and have been fed on spoiled food which gives them a fish-oil taste. Also that they are packed immediately after slaughter, before being cooled, in narrow cases or barrels, and that during the long transport there is danger of putrefaction, and their odor is not agreeable. Chickens, ducks, and eggs which are sold here by the piece and not by weight have correspondingly risen in price.

There is a loud demand in the press throughout the country for the opening of the boundaries between the adjoining nations for the importation of cattle on the hoof for slaughter. A Brunswick paper states that "In the different States, and above all in Bavaria, it is seen in official circles that this bad condition of affairs can not longer continue, but at least the attempt must be made by the opening of the boundaries to bring about an improvement even if the opening must be done with great circumspection. Even the free conservatives begin to see that the importation of meat and cattle must be increased and, at their party meeting at Breslau, recommended this expedient."

PROSPECT FOR AMERICAN PRODUCTS.

Unfortunately, the report of the breaking out of the mouth and hoof disease in the Berlin cattle yards has been confirmed, but what this has to do with the admission of healthy cattle from other countries is hard to see. If the boundaries are opened it is thought that the demand for cheaper meat will be satisfied.

No mention is made in the press as to the removal of the prohibition of the importation of certain canned meat. Such a measure can only be brought about by a modification of the present tariff law, and no matter what concessions are made by other countries there is no apparent prospect of such a modification. The revelations concerning the Chicago slaughter houses have raised a violent prejudice against this kind of meat, and even if its importation were fully allowed, it would take a long time to restore confidence in it. But steps should be taken to inform the people of foreign countries of the security of the new American meat inspection and of the great value of the large variety of American food products, which they can enjoy without danger to health.

The German law does not forbid the importation of pickles, preserves, and condiments. Whether a trade in them can be established in Germany depends solely upon the question whether American houses can compete in price with foreign houses in these articles.

The leading firms, wholesale and retail, dealing in canned goods, pickels, preserves and condiments, etc., in Brunswick [the addresses of which can be secured from the Bureau of Manufactures] should be addressed in the German language.

MEASURE TO REDUCE COST OF MEAT.

The Prussian State railway council has, according to a Berlin dispatch in the London Times, adopted by a large majority the government proposal that the railway rates for the carriage of fresh-killed butchers' meat should be reduced. This experimental measure is intended to reduce the present high price of meat by lessening the cost of bringing it to market. As in many quarters it is maintained that meat is not only dear, but also scarce, the effect of the reduction in the cost of carriage will be watched with interest.

BELGIUM.

BELGIUM IMPORT TRADE EXTENSIVE—PRESENT MARKET CONDITIONS.

Consul-General H. W. Diederich writes from Antwerp that during the year 1905 the total importation at that Belgium port of preserved meats was 2,794 tons, of which only 127 tons came from America, 1,306 tons from England, and 1,039 tons from Germany. He says that these figures show that there should certainly be a large field for the development of American trade in that line. The only practical way of meeting the competition is by personal representation by active, experienced men. To introduce a new article into Belgium, experience shows that a liberal distribution of samples is necessary and the public convinced that the quality of the American product is at least equal to that from other countries. This is particularly true since the recent excitement over certain Chicago meat products.

CLOSE COMPETITION.

Consul J. C. McNally reports from Liege that the American export of canned goods into Belgium in 1905 was 2,635,292 pounds, of which quantity 1,119,600 pounds was for home consumption. He continues:

In the matter of ham, ox tongue, bacon, etc., the United States in 1905 exported to Belgium 28,922,269 pounds, of which 24,226,677 pounds remained for home use. The total importation from all other sources was only 5,109,232 pounds, of which 4,052,492 was for local use. A spirit of emphatic competition with American goods is manifest on every hand, not only with the canned goods and other foodstuffs, but with every other article American. To convince the local dealers that the quality of goods is equal to those of competitors is a step that must be taken in this district by any American manufacturer hoping to establish a market here. Competitors must be met in quality, price, and trade concessions.

SWEDEN.

TOO MANY HANDLING EXPENSES.

Consul R. S. S. Bergh reports that Chicago corned beef is known at Gottenborg, and has been sold in the more prominent Swedish grocery stores.

The transportation costs, the import duty, the agent's, wholesalers', and retailers' profits, make canned meats comparatively expensive,

and in consequence the consumption of such is limited. Furthermore, people not used to canned meat do not like its taste and smell. The import duty on canned meat of neat cattle and sheep is 12 öre per kilogram (2⅛ pounds), or about 1.5 cents per pound. Pickles and ready-made sauces are very little used by the people of Sweden, but some are imported from England and some prepared by Swedish preserving factories.

Canned goods are sold either to wholesalers or direct to the grocery stores by commission merchants acting as agents for their respective foreign factories. American salted meat in barrels has been imported to a considerable extent, and found a ready sale here until the bad reports about Chicago methods appeared. It has been claimed that said meat is, or has been, impregnated with too much chemicals (boric acid, etc.), making the inspection of the meat here difficult.

NORWAY.

CANNED GOODS NOT MUCH KNOWN.

Consul-General Henry Bordewich, of Christiania, advises that the prospects for increase in the consumption of all American beef products in Norway are at present very good; but while American hams, mess beef and pork are so well known in the Norwegian market that advertising is unnecessary, the canned meats are rather neglected, the reason being that the public have not learned to appreciate them as they deserve. These goods should be more freely advertised in the principal newspapers of the country.

FRANCE.

GOOD SALES OPPORTUNITY IN SOUTHERN SECTION.

Consul Harold Van Buren, of Nice, advises a campaign in southern France in favor of American meat products. He writes:

Meats of all kinds are very inferior here, unless of choice qualities at prices beyond the reach of 95 per cent of the population. The flavor, sweetness, and tenderness of American meats are such (and we refer to canned goods) as to cast the meats sold to the average consumer quite in the shade. If sold direct the consumption of such would, beyond a doubt, become enormous in the course of a very few years. During the past ten years, and until some months ago, the trade in American canned goods very gradually increased, and this despite the fact that in no case were those goods purchased direct, and that in consequence the prices were abnormally high. Even now none of such products come direct, and we have ascertained that the dealers who retail here purchase from a local wholesale dealer, who in turn buys from a wholesale dealer at Marseille. We can not make a positive assertion, but we strongly suspect that even he does not import the goods. The effect of at least two middlemen may be readily understood.

American brands of canned corned beef are retailed as follows: A can weighing about 15 ounces gross, at 17 to 21 cents, while the larger size, of about 27 ounces, costs 30 to 34 cents per can. The retailer pays 15.4 and 28.9 cents, respectively, for these. We are further informed that formerly about 200,000 boxes of American canned goods were sold here per annum, and that since the late attacks upon the

American meat industry the sale of canned meats has become almost nil. It would further appear that an organized crusade against these products is being waged by competitors. The decrease in the sale is in no sense due to any other reason than the one stated, as all our information points unanimously to the uniform excellence of our meat products. We have frequently remarked the extremely low prices at which all such goods are retailed in America and have not found in the charges for freight and duty a sufficient reason for the very high prices charged here. If imported to Nice by a direct bill of lading the quantity of all such goods sold here would increase phenomenally, while the middlemen's profits and charges, saved by such direct importation, would result in prices defying competition from any other manufacturers.

CALAIS PROSPERITY PROVIDES FRESH MEAT.

Consul J. B. Milner learns that the canned-meat sales in Calais have been principally to mariners and to the English residents. He writes:

The northwest part of France is most prosperous, due to the machine-made lace industry. The people have plenty of money and are decidedly disposed to eat fresh meat produced by the country, which though expensive is very good. I visited twenty or more grocers in Calais and Boulogne, most of whom had Chicago corned beef in stock. One grocer in Calais told me that before the Chicago meat scandal he could sell seventy to a hundred 2-pound tins per annum, but that since the scandal he had not sold a single tin. An English grocer in Calais told me that all canned articles had fallen into disrepute since the scandal and that it is almost impossible to sell even canned salmon.

In one grocery store I met a commercial traveler who had traveled for several large English and American packing houses. He stated that the sale of canned goods, which was never very brilliant in France, had been completely ruined by the scandal, but that he thought that confidence would soon again be restored.

A BUSINESS CAMPAIGN OUTLINED.

Consul-General Robert P. Skinner, writing from Marseille, says that the chief obstacle to the extension of the American salted and canned meat business in France is the apparent unwillingness of American packers to organize selling agencies of their own, officered by Americans familiar with packing-house resources and methods, and prepared to give their work that day-to-day attention which it requires. Mr. Skinner continues:

As matters stand, the great firms appoint as their agents in French cities importers who are engaged in a general commission business. Sometimes the whole line of the packing house is intrusted to one firm; sometimes there is one agent for lard and tallow, another for meat products, and so on. While excellent results are often obtained in this way, there is necessarily a lack of coordinated effort, frequently an indifferent knowledge of the large variety and striking merits of the American products on the part of the actual salesmen, and generally speaking there is just that unsatisfactory condition which impels my correspondents to say that they will be "glad to know

what obstacles prevent an increase in the canned-meat business in your country."

The various meat and vegetable products of American origin now retailed in France reach the public through numerous large and small corner groceries. The commission agent who imports the goods is very likely to sell at wholesale to the "marchand en gros," and this latter then works for the small trade, so that the man who actually discusses the trade with the corner grocer is equipped with indifferent information, and may be as willing to sell one mark as another to his buyer, the profit being more or less the same. It seems to me that a business of such magnitude would stand a trade organization on the part of the manufacturers themselves. The typewriter and cash register organizations are shining examples of what American effort can do when it applies to foreign trade the methods which prevail in the United States.

THE FRENCH TARIFF RATES.

Naturally the building up of trade in France is hindered by the French tariff, although this does not apply to canned meats, manufactured and prepared pork meats, lard and its compounds, all of which are entitled to the minimum French rate of duty, under the convention dated May 30, 1898. This is not so, however, as regards salted pork, ham, bacon, and beef, to which is applied a duty of 50 francs ($9.65) per 100 kilograms (220 pounds) when the merchandise comes from the United States, and 30 francs ($5.79) per 100 kilograms (220 pounds) when imported from some other country. In addition to this discrimination of 20 francs ($3.86) per 100 kilograms (220 pounds) against salted meat from the United States, there are vexatious administrative measures which also apply to the American products only, arising from a cause dating back to 1879. In that year the health authorities of the city of Lyons reported the presence of trichina in American pork, with the result that since that time shipments of salted meat from the United States are obliged to be accompanied by the American Government certificate of microscopic examination, without which they will not be landed in this country. The certificate being produced, several of the cases are chosen at hazard by the meat inspectors, which are accepted as typical of the entire shipment. If the contents are clearly healthy, an ordinary visual examination only is made, but if suspicions are aroused the merchandise is examined microscopically before given clearance. The Marseille importers now complain that for a long time they have been unable to secure the necessary certificate of microscopic examination, and business has been brought to a standstill, except as it is carried on by some indirect importations from England.

THE ENGLISH ROUTE

I am informed by the official inspectors in this city that shipments arriving in Marseille via English ports are accepted when accompanied by a declaration by the English importer to the effect that the goods arrived in that country covered by the certificate of microscopical examination required by the French decree, it being merely necessary that this declaration be made before the French consul at the English port and indorsed by him. The shipment, being accompanied by this consular certificate, is then examined by the French inspecting officers,

as in the case of direct arrivals from America. On the other hand, it is taxed at the rate of 3.50 francs per 100 kilograms (67 cents per 220 pounds) in addition to the normal rate, because of the fact that it is an indirect shipment.

There is no special scrutiny of canned-meat products, nor are certificates of any kind required to secure their clearance. The demand for canned meats in France has never been particularly active, and it is said that the chief demand now comes from foreigners residing in this country. This is the statement made to me by a large importer himself, and I think that it simply confirms my conviction that no selling campaign has ever been undertaken which would create a really important demand. The goods simply sell themselves—sometimes with amusing results. Recently an acquaintance journeyed to a small village to buy a particular sausage of an old woman whom he had credited with producing it herself. She sold him the sausage, and then naively remarked that she would not deceive him, but she believed the sausage came from Chicago.

WHAT THE TRADE NEEDS.

As things stand, to increase the demand for canned products from the United States, there is necessary a more effective organization on the part of the packers, and a general advertising campaign for the instruction of actual consumers who only know about American packing-house products from what they have been reading recently in the newspapers, or from reading labels, in a language which they do not understand, in grocery stores. Nothing stands in the way of the extension of this business at present so far as the French Government is concerned.

To reinvigorate the business in American salted meats in this country we need, not only an effective selling organization, but an international understanding which will prevent American products entering France from being taxed at higher rates than are applied to the products of every exporting nation except our own, and we need also a definite understanding with the French Government, doing away with the requirement of the production of a certificate of microscopic examination, and acceptance of whatever form of certification at present in force, and the admission of our goods upon the same terms as those of European countries generally in the matter of health requirements.

The importations at Marseille during the first nine months of 1906, 1905, and 1904, were:

Articles.	1906.	1905.	1904.
	Pounds.	*Pounds.*	*Pounds.*
Salted pork, ham, and bacon	294,166	362,431	784,378
Salted beef and other meats	175,322	79,930	559,087
Manufactured meat products	817,537	564,272	478,506
Canned meats	939,363	628,563	407,382
Tallow:			
United States	14,022,398	10,843,954	7,491,220
Argentina	377,490	504,238	1,445,527
Other countries	1,119,253	1,773,272	1,242,425
Lard:			
United States	756,257	583,750	1,094,453
Other countries	21,847	24,770	31,856

THREATENED DISCRIMINATION AGAINST AMERICAN PORK.

A Paris dispatch states that the French foreign minister has informed Ambassador McCormick that, pending the settlement of questions that have arisen under the new meat inspection regulations of the United States, shipments of pork on their way to France will be admitted under the same terms as heretofore.

When it was announced that microscopic examination of pork in the United States would be abandoned, France threatened to prohibit its admission. But it was shown to the French authorities that the new United States meat inspection law is much more rigorous and efficient than the old one. France imposes such high and discriminating duties on American pork that it is now practically excluded from that country. For the last fiscal year the total exports to France of pork were as follows: Bacon, $10,993; ham, $1,719; pork canned, fresh, salted, or pickled, $3,190; making a total of $35,902, as compared with $53,738,434 worth exported to the United Kingdom, excluding lard in both cases, of which latter product Great Britain took in value $19,511,295, Germany $19,522,626, and France $436,443.

ITALY.

SPECIALTIES SHOULD BE STUDIED.

Consul Paul Nash, of Venice, sees no reason why the moderate business now existing in American canned goods, and particularly canned meats, in Italy should not be very greatly increased. He writes:

In order to develop trade it would be advisable to send an agent thoroughly conversant with the language and customs of Italy and instruct him to make a personal canvass, being prepared to supply individual small orders from some central depot in Europe. No successful business can be conducted by post under ordinary circumstances, and one of the fundamental reasons why American trade does not develop with that degree of rapidity which we all desire is that American manufacturers, who, in their own country, spare no expense on commercial travelers and proper advertising, seem to imagine that this same system is not necessary in Europe. The details of business, prompt shipment, proper packing, small individual sales, long credits, and a willingness to assume that customers are not necessarily dishonest, have already been thoroughly explained by consular officers.

The Italian customs laws require certificates of origin, as well as an examination by a local inspector, on all pork products brought to Italy, and great care should be taken that the merchandise shipped be of the best quality, because a single can of meat found to be defective suffices to cause a prejudice which takes months to overcome. Immense damage has already been done to the trade by certain unscrupulous exporters who have not hesitated to send goods abroad utterly unfit for human food. There is undoubtedly an impression in Europe that American pork is more apt to be infected with trichina than that produced in other countries, but I am informed upon excellent authority that comparative tests recently made between German and American pork have shown that this is not true. Nevertheless, as the consumption of raw ham is very great in Italy, the well-known German system of inspection inspires more confidence. It is therefore incumbent

upon American packers to convince foreign buyers that trichina is not more prevalent at home, and that the same care is exercised in inspection as in other countries. No enterprising packer desiring to extend his trade in Italy should neglect to instruct himself in the art of making certain of the local specialties, such as zampetto, cappello da prete, mortadella, and salame, all of which could be manufactured by us and sold here at a very much smaller price than prevails in this market.

NO PREJUDICE AGAINST AMERICAN CANNED GOODS.

Consul James E. Dunning, of Milan, knows of no unreasonable obstacles to prevent an increase in the canned-meat trade between the United States and Italy. He writes:

The Milan district is admirably suited to this purpose. There is no sort of prejudice in Italy against American goods or American methods. The exact contrary is true, as it has been for several years in an intensifying degree of advantage. North Italy is in the nature of the case a "canned-meat country," by reason of dense population, high relative wage scale, general freedom of living, and the liking of the people for attractive novelties of all kinds. The trade in food supply is spread through the many small shops where canned meats are for sale as well as at the meat markets. In the groceries good use is made of such stock for window displays, and it is the habit, as in America, to feature an article with a special bargain price one day in a week.

PEOPLE WOULD LIKE TO EAT MEAT.

The price of fresh meats remains unreasonably high for a country which might supply itself at a lower cost. Italian live stock is generally poor and light weight, underfed, and early killed. Restaurants serve meats at all hours and in large quantities, for the people as a whole are meat eaters, quite contrary to an impression prevailing in the United States. But the price runs so high that the thrifty housekeeper seldom indulges her family in such a luxury. It is a meat-eating population driven to semivegitarianism by high prices. The consulate believes that a determined effort among American exporters of canned meats would find the suggested opening attractive. In Italian housekeeping the national custom is to cook with gas, the meals for a large household being prepared on a tiny double burner. Gas is sold at a reasonable price in contrast to the almost prohibitive cost of wood and coal. The best Italian and French cooks require no more than a two-burner gas stove—the flat ordinary arrangement used in American sick rooms and elsewhere for boiling water and such small tasks—on which to do all their work. Hence the common tendency of even the more elaborate meals to revert to the standards of the simple life, and the advantage to both the cook and the household of having at hand for any occasion good meats and meat products in cans. The situation ought to appeal to the live exporter with the right stock to throw into this field.

PROGRESSIVE DEALERS.

The line of canned meats obtainable is narrow, including only corned beef, smoked herring, sardines, and beef extract. One brand of American corned beef is found everywhere. The beef extract is German.

The sardines are French, as are the herring. There are but two department stores in Milan, and in but one of them are canned meats handled, and there only in the restaurant. Another concern, headed by a progressive man [name of this party and ten other leading grocers of Milan can be secured from the Bureau of Manufactures] owns outright 13 modern shops in various quarters of the city and makes a specialty of bargain-day features. He is the leader in the fancy trade in Milan, though there are several others operating fine stores. There are probably a hundred other smaller but all independent dealers who could be made available. One large American packer has an agency in Milan under an Italian name, and has in this way placed a line of corned beef throughout the city, selling at from 22 to 25 cents per can. In the populous country around Milan, and throughout the northern provinces generally, the situation is the same, and in a dozen large towns of from 40,000 to 100,000 population in "striking distance" of the metropolis, the same field exists and can be entered and cultivated in the same way.

The consumption of foreign meats is increasing slowly. In 1905 the Milan consular district imported only 25,500 pounds of preserved meats of all kinds (exclusive of beef extracts). Germany shipped in about two-thirds of the total, with Switzerland, Great Britain, France, and Austria-Hungary following in order. The importation from the United States was too small to gain any detailed classification in the custom-house.

TARIFF CONDITIONS—SPECIAL SUGGESTIONS.

Canned meats pay an import duty on entering Italian ports of 25 lire ($4.83) per quintal of 220 pounds. Under the reciprocity convention between Italy and the United States, dated July 18, 1900, fish pickeled or in oil (excluding the tunny), preserved in boxes or barrels, sardines and anchovies pay only 15 lire ($2.90) per quintal.

Roast mutton, owing to the poor quality of the fresh Italian stock and the habit of killing underfed and undergrown animals, could be made an interesting feature of an American canned-meat campaign, as lamb is well liked everywhere, but purchased with difficulty by any discriminating buyer. Bacon is in great demand, and the supply is deficient and poor. A first-rate sliced breakfast bacon could be pushed to advantage. Ham is found in Italy in great quantity, and while the curing and smoking are inferior, this line would not be so profitable as a number of others.

The characteristic soup of Italy is a "minestra," made of kitchen leavings and cooked with a great deal of rice and vegetables. It is the Irish stew of the south. Heavy soups are more in favor than clear. Bouillon is not in demand. Beef broth is always called for. Veal is the meat most frequently met with in Italy. Corned-beef hash is unknown. Pate and livers could be well placed for the usual run of after-theater and luncheon trade. Sauerkraut and sausage could be given a hold among the large and increasing German population. Vienna sausage could be made a leader, especially in advertising and in window display. Sliced cold ham, tongue, beef, and lamb, with pickle garnishings, are unalterable courses at every well set-up Italian dinner. Everything in such a campaign would depend on the preliminary work and the choice of a representative. He

should be an Italian, and paid only for what he accomplishes in results—preferably on a commission basis with a small regular compensation to cover the slow initial period.

NETHERLANDS.

DUTCH MARKET SAID TO HOLD FIRM.

Consul-General Soren Listoe, of Rotterdam, knows of no reason why Chicago firms should not have a share of the Netherland's trade in canned meat. He writes:

Several of the larger Chicago packing houses have for years maintained permanent agencies at Rotterdam, which originally worked up trade for their respective firms and still look after their interests. If other firms desire to secure trade in this line it will be necessary to send capable and enterprising men over to introduce the goods. Last year's exposures and criticisms of the packing houses in Chicago do not seem to have made much impression on the Dutch people, and I am, in fact, informed by a representative of one of the said packing houses that his sales did not decrease during said period, nor have they since decreased to any perceptible extent.

CANADA.

THE DEMAND IS NOW REVIVING.

Consul James S. Benedict, of Campbellton, from information received from dealers in canned meats, can see no obstacles to prevent an increase in the sale of said products other than those that have existed for some years past, viz, the competition with the home or Canadian products, which have obtained a strong footing in New Brunswick and the customs tariff. The consul continues:

Immediately after the packing-house investigation the sale of American canned meats was reduced by possibly one-half; but this prejudice seems to be wearing away, and in my opinion the investigation will prove most beneficial in increasing the sale and consumption of same in the near future. I have been informed by a reliable merchant that he has recently noticed a marked increase in the sale of these goods, which he considers a good indication. The community must have them on account of the prevailing high prices of fresh meat, and in order to meet the deficiency of the fresh-meat supply at certain periods of the year.

In order to overcome all remaining prejudices or doubts existing in the minds of the people of Canada regarding American canned meats, I would suggest that the packers or exporters send reliable representatives of their respective establishments, who would be capable of meeting all arguments, through the Dominion of Canada, to enlighten the dealers and consumers relative to the methods of enforcing the United States laws and regulations pertaining to food products. This is especially necessary when it is claimed by some that the act will not be enforced to the full. The assurance that it will be the faithful and honest endeavors of the packers and those concerned to put nothing on the Canadian market but pure, wholesome, and genuine goods will furnish the strongest arguments in favor of the consumption of American canned products.

MEXICO.

AMERICAN CANNED GOODS LITTLE KNOWN.

Consul T. D. Edwards reports from Ciudad Juarez that the absence of knowledge among Mexicans generally and the laboring class especially of the character, quality, and utility of American preserved meat products prevent their general use. He writes:

A practical demonstration to the masses of the properly preserved condition of American meat goods is needed. Less than 10 per cent of the inhabitants of the Republic know of Chicago meats, and a major portion of those consider them impracticable for general use, and only intended for cases of emergency. The introduction of anything new is necessarily slow in Mexico, and a change in an article of food is accepted with reluctance.

The changed condition of the laboring class and the masses, a general tendency toward a higher standard of living, should make the present an opportune time to enter the country with American canned meats. The climatic conditions in Mexico and the rarity with which her people are accustomed to preserve and cure foods for future use furnishes a wide field for the canned-meat trade.

SALVADOR.

HIGH PRICES RESTRICT SALES.

Consul-General John Jenkins, of San Salvador, states that the food products that best sell there are sliced ham, sliced bacon, corned beef, deviled ham, and ox tongues.

The chief obstacle to a considerable increase in business is that the market is limited, due to the fact that the duties on canned meats are high and they are thus placed beyond the reach of all except the well to do. Aside from the high price, no objection exists to canned meats. The most popular are sliced ham and sliced bacon, but there exists a disinclination to import them in any quantity. Quite a percentage of cans come with "swell heads" and are consequently a loss to the merchant. The cause of this has not been ascertained, but it appears that they do not keep well in hot climates.

HORSE MEAT.

SALE METHODS IN BELGIUM.

Consul J. C. McNally, of Liege, finds that in Belgium, as in other European countries, the sale of horseflesh is becoming a recognized branch of the butchering business.

Scattered through Liege are many shops selling horse meat exclusively, a horsehead attached to the front of the shop or a sign indicating the business within. While it is not forbidden for a meat market to handle both beef and horse meat, it is quite unusual to do so, dealers carrying their separate lines. When the meat is dressed and exposed for sale the only noticeable difference is in the color, which is of a deeper red and has a coarser fiber than the beef. Those accustomed to eat horseflesh are loud in its praise, and declare it to be as palatable as beef, and that many persons eat horseflesh under the

impression that they are eating beef. There is no doubt that horseflesh is growing in favor. It sells for about half the price of beef or mutton.

BOOMING HORSE MEAT.

The dealers in horse meat are most active in proclaiming the prime quality of their article and a campaign of persuasion is now on. They contend that the horse in ancient times was held in high esteem; that the eating of horseflesh dates back before the Eighth century, and that in China the horse has been eaten for six hundred years. The first European people openly practicing hippophagy were those of Denmark in 1807, when Napoleon invaded that country. The Germans also attribute that practice in their country to the same person during the wars of 1815, at which time the food supply was very low. The first hippophagic slaughterhouse was created in Prussia in 1847, also a year of great famine.

In Belgium the eating of horseflesh dates back to 1870, from which time it has been increasing steadily. The only seeming obstacle to its immediate popularity is the prevailing impression that only the worn-out animal unable to further serve as a dray horse is handed over to the butcher for slaughter and sale. This impression is no doubt circulated by the beef dealers. In Liege many colts are slaughtered for sale, as well as young horses. The charge for slaughtering and appraising at the public slaughterhouse is 50 cents for a horse and 32 cents for a young horse under eighteen months. The animal undergoes the same rigid inspection given to beef, mutton, or pork, which inspection is under the supervision of a veterinary duly recognized and appointed by the governmental authorities, under whose guidance the public abattoir is administered. The number of horses and colts slaughtered for Liege in 1904 was 1,287 and it is estimated at 2,000 head for 1905. The choice cuts of horse meat sell for about 20 cents a pound, while the beef commands about 35 cents.

LIVE STOCK.

CATTLE FOR MEXICO.

CARLOADS BEING IMPORTED EVERY DAY.

Since the duty was taken off American cattle by the Mexican Government carloads have been crossing the line to replenish the run-down ranches in some parts of Mexico, states the Mexican Investor. Almost every day carloads of cattle can be seen passing through Monterey to points in the southern part of the Republic.

Most of the cattle imported from Texas and points farther north are fine bred. Of late many fine milch cows have been shipped in from Illinois, Kentucky, and other States noted for fine cattle. These are going to Mexico City and vicinity for the dairies which are springing up in that part of the Republic. Most of the fine breed of cattle are coming from the Northern States of the United States, and cattle for the ranches are being shipped mostly from Texas, Arizona, and other Southwestern States. At the present rate it will not take long to supply Mexico with fine cattle, both for the range and the dairies.

CATTLE DISEASE.

INFECTION IN BELGIUM—RESTRICTIVE MEASURES.

According to Consul-General G. W. Roosevelt, of Brussels, recent reports announce the appearance of aphthous stomatitis among cattle in several localities in Belgium.

The Government is taking energetic measures to prevent the spread of the disease, and although its highly contagious nature is well known, as well as that the application of all remedial measures are difficult, the infected cattle have been isolated instead of at once being sacrificed. The disease may be carried by cattle buyers who, having visited infected stables, transmit the germs of the disease to farmers with whom they come in contact, and by the latter to their cattle. The disease is rarely fatal, but the loss sustained by the farmer consists in the gradual emaciation of the animals and loss of milk.

BREEDING STOCK.

URUGUAY NOW ADMITS AMERICAN CATTLE.

Consul John W. O'Hara, of Montevideo, forwards a copy of a decree by Uruguay modifying the import regulations for live stock. Certain breeders claimed they "could not import stock from North America because the sanitary authorities thereof refuse to issue certificates that cattle plague had not existed there in ten years," as required by Uruguay. Being satisfied that cattle plague no longer exists in the United States, the term of "one year" is substituted for "ten years" in the required certificate.

ANIMALS IN CHILE.

NUMBER IN REPUBLIC—ANIMALS CONSUMED.

According to the report of the minister of industry and public works of Chile, Consul Alfred A. Winslow figures that there are in that Republic 698,880 horses and mules, 2,477,064 head of cattle, 2,405,584 sheep, 461,908 goats, and 287,614 hogs. Cows are worth from $27 to $45; steers $40 to $75, owing to their condition; calves, from $8 to $12, and yearlings $12 to $17. It is estimated that the country consumes 400,000 cattle, 545,517 sheep, and 145,741 hogs yearly, of which about one-half are consumed in Valparaiso and Santiago.

FRENCH ANIMAL PROTECTION.

PRESENT LAW DOES NOT PROHIBIT DOCKING HORSES' TAILS.

In reply to an inquiry as to whether France has a law specifically prohibiting the docking of horses' tails, and the extent to which such law is enforced, Consul-General R. P. Skinner, of Marseille, has to say that the only legislation on this general subject now on the books of France is the Grammont law, passed in 1850, as follows:

Those who shall have publicly and abusively treated domestic animals will be punished by a fine of 96 cents to $2.89, and may be subjected to imprisonment of

from one to five days. The penalty of imprisonment will always be applied in cases of second and repeated offenses. Article 483 of the penal code will always be applicable.

Mr. Skinner continues: While this law is very broad and satisfactory as regards most forms of cruelty, it does not prohibit the docking of horses' tails, an operation which does not take place publicly, and public sentiment has not advanced sufficiently in Europe to encourage much hope of an amendment of the law or any other effective means of preventing the operation in question. The president of the Marseille society, who is doing an excellent work, writes to me on this subject as follows:

Against the usage which has become so general in Europe, I think that it would be almost impossible to proceed at present, and for the moment none of our societies have thought of going further than to do what they could by the distribution of printed advice. In Switzerland and Belgium, where the anticruelty societies are active and powerful, this abuse exists as in this country.

The French societies are maintained with difficulty by a few devoted men and women, who deserve encouragement and support in their noble work. American friends of domestic animals who wish to do so can communicate on this subject with the Comité de Protection des Animaux, 52, Rue Paradis, Marseille, or the Société Protectrice des Animaux, 84, Rue de Grenelle, Paris.

IRISH DRAFT HORSE.

PLAN TO REVIVE OLD TYPE—GOVERNMENT AID.

Consul H. S. Culver, in a letter from Cork, tells of a movement in Ireland for improving the breed of horses:

According to the department of agriculture the introduction of Shires and Clydesdales into the hunter-breeding districts of Ireland, has greatly deteriorated the quality of the horses, and a scheme has been devised having for its object the breeding and preservation of horses of the old Irish draft type. The type of horse sought is one standing not less than 15 hands high, and displaying throughout its conformation a sufficiency of power to warrant it to do general farm and harness work

The scheme invites owners of such mares to apply to have them inspected for inclusion in the new register or stud-book. It is provided that no mares will be accepted which show traces of Shire or Clydesdale blood. Owners of selected mares must undertake to have them bred to Irish draft stallions selected under the scheme, and to offer the produce for future inspection, and to keep approved colts for breeding purposes. As an inducement, the department will provide, free of all costs to the owners, service for the mares selected under this scheme, and will purchase approved foals.

BUTTER AND CHEESE.

CANADIAN DAIRIES ACTIVE.

LARGE INCREASE IN CHEESE EXPORTS—DECLINE IN BUTTER.

A report from Consul James H. Worman shows that Canadian dairymen for the past year have been paying more attention to cheese and less to butter making for export. The consul writes from Three Rivers:

The Canadian farmers received, during the navigation season of 1906, $19,921,873 for 2,258,357 boxes of cheese exported via Montreal, Quebec, and Portland, making a gain of $2,378,771 over the previous year. The exports of butter, however, by shipments from these ports has fallen off by 192,506 packages, due probably to the fact that a large export of butter has this year gone into the United States.

A very large amount of butter and cheese goes from this consular district, where it is sold on the butter and cheese exchange established here last year, but these shipments are usually entered as shipments from Montreal. The average price paid the farmers for cheese was 11½ cents, and as the average contents of a box is about 75 pounds, the average price per box was about $8.60. The total shipments of cheese and butter are as follows:

	Boxes of cheese.		Packages of butter.	
	1906.	1905.	1906.	1905.
Via Montreal	2,227,838	2,129,793	361,400	554,041
Via Quebec	28,507	.....	1,012	.....
Via Portland	2,012	27,562	1,350	2,227
Total	2,258,357	2,157,355	363,762	556,268

The total increase for 1906 in cheese shipments was 101,002 boxes, and the decrease in butter shipments 192,506 packages.

THE NETHERLANDS.

PROPOSED LAW FOR OFFICIAL INSPECTION.

Consul J. I. Brittain forwards from Kehl the following abstract of a new law proposed for the regulation of the manufacture of butter in the Netherlands.

Commercial butter must contain a certain percentage of fat, to be fixed by royal decree. Margarine shall not indicate a higher saturation figure than 10 for the volatile fatty acids contained in it. The manufacturers of margarine and of margarine and butter together are registered. Manufacturers of margarine shall not deliver butter, or store butter, for the purpose of being forwarded. In places where butter is made, and in spaces communicating therewith, no margarine may be present nor any other fat which could be mixed with butter.

Those who manufacture margarine as well as butter are made subject to special and continual Government supervision as regards the places where butter is made and stored. They themselves must pay

the expense of this supervision. The places where butter is made and stored shall be separated from those where margarine is made and stored. Traders and shopkeepers who make mixtures of butter with any other fat are considered to be manufacturers of margarine. The officers whose special duty it is to see that this law is duly observed are authorized at all times to enter the places where butter, margarine, and other foreign fats are manufactured, and also the places used for storage by the manufacturers concerned. They can also take samples in all such places.

The same authority is given as regards shops, auction rooms, places used for storage, and other spaces where butter, margarine, or other fats are present or are supposed to be present, and also as regards the means of conveyance. A similar authority is given as regards places where the said fats are manufactured to chemists entrusted with the making of analyses for judicial purposes. The bill contains a stipulation giving power to prepare regulations as regards the importation of foreign butters. Willful contraventions of the principal provisions of this law are punishable with imprisonment only.

SWEDEN'S EXPORT.

DECREASE DUE TO GREATER HOME DEMAND.

Consul R. S. S. Bergh, of Gottenborg, notes, with reference to America's efforts to export butter to England, that the Swedish export of this article seems to decrease.

The latest evidence of this is a report from the Swedish dairy agent in England, who states that the aggregate export of butter from Sweden to England and Denmark during the three first quarters of the year 1906 was only 11,939,087 kilos (26,321,177 pounds), while the export during the same period of 1905 amounted to 14,053,707 kilos (30,983,116 pounds), thus showing a decrease of 4,661,939 pounds for such a short period. It is stated that this is solely caused by the greater domestic consumption of butter—for the production of the Swedish creameries is increasing, besides the butter made by the farmers, many of whom now have cream separators and modern churns. The present retail price of butter in Gottenborg ranges from 2.10 to 2.40 kroners per kilogram (25 to 29 cents per pound), according to quality.

AUSTRALIA.

SHIPMENTS OF BUTTER.

Consul-General J. P. Bray, of Melbourne, reports that the present butter season in the state of Victoria promises to be a record one in regard to exports.

For the first four months of the season (from July 1) the increase in the exports was 1,455,802 pounds. United Kingdom took 7,134,769 pounds, against 6,250,608 pounds same period in 1905. Cape Colony and Natal took 920,834, against 418,867 pounds, while other destinations took 398,517, against 338,843 pounds. Prospects favor very heavy shipments during November, December, and January.

SOIL PRODUCTS.

THE WINE INDUSTRY.

YIELD IN FRANCE.

RESULTS SUMMARIZED AT LA ROCHELLE—COGNAC REGION FAVORED.

From La Rochelle, Consul George H. Jackson reports that the vintage was finished the last week in October, with the following varying results in different parts of France:

The Cognac region would appear to be certainly the most favored. The quantity has been much greater than anticipated, and has been more or less abundant according to the region. The country directly to the north of Cognac, known as the "pays bas," the soil of which is the bed of a former lake, still preserves the only vineyards of old French vines which resisted the invasion of phylloxera. This section produced a quantity superior to that of last year. The same may be said of the "borderies," but it is especially in the country to the southeast of Cognac, known as the "grande champagne" district, that the wines grafted on American roots have given most wonderful results.

It should be remembered that the soil in this region is very thin and calcareous, and the vineyards are almost invariably planted upon the hillsides. It appears that some of these vineyards have yielded 200 hectoliters (5,300 gallons) per hectare (2.45 acres). This is the more remarkable when it is considered that the season just passed contained more than four months of drought. The purchase of new wines has begun in various portions of France, and the following prices have been realized:

In the Var, where the anticipated quantity has been exceeded, the excess has been sold at $1.93 to $2.32 per hectoliter (26½ gallons); in the Gard the price of wine has been 19.3 cents per degree of alcohol; otherwise from $2.12 to $2.50 per hectoliter; in the Hérault, Roussillon, the Languedoc, and the Aude prices are from 19.3 to 22.1 cents; in Gascogne the price is $4.83 to $6.75 per barrel of 228 liters (66 gallons); in the Dordogne $3.86 to $4.83 for white wines and $4.83 for red; in the Charentes the prices have not yet been fixed. The "muscadets" of the Vendée are sold from $9.65 to $11.58; the wines of the Nantais, $4.83 to $6.75.

The wines of Avignon sell from $4.25 to $4.79 for the rosy wines, while the red wines sell for $5.79 to $6.75, the ordinary white wines $4.83 to $7.72, and the superior white wines from $9.65 to $19.30 per barrel. In the Touraine there is an upward movement of about 97 cents over the prices at the beginning of the season. In the Cher the price per barrel varies from $4.83 to $6.75, while in the Allier considerable quantities of 1905 wine have been sold from $1.93 to $2.90. The prices of the 1906 wines of this region are worth about double the preceding ones.

In the Burgundy region the qualities are considered fine, and there is a corresponding increase in the price over the wines of 1905. In Auvergne the wines of this season are supposed to have great "finesse," mellowness, body, and color, with an alcoholic strength of from 8½ to 11 per cent. They have been purchased in small quantities, as follows: The red wines at 70 cents per jar of 15 liters (4 gallons); the white wines at 85 cents, which is an improvement of 24 cents over the same prices for the same quantity last year. At Cette the Algerian wines pay from 20 to 24 cents per alcoholic degree.

TOTAL VINTAGE.

The Official Journal, at Paris, publishes the report of the French vintage of 1906 in accordance with data furnished by the departmental professors of agriculture. The land under cultivation for wine in 1906 amounted to 1,771,904 hectares (hectare=2.471 acres), as against 1,744,108 hectares in 1905, and the production amounted to 51,042,806 hectoliters (hectoliter=26.417 gallons), as against 57,857,305 hectoliters in 1905. This year's output is divided into 49,405,878 hectoliters of ordinary wine and 1,636,988 hectoliters of fine wine.

TRADE COMBINE.

VINEYARDISTS FORM COMBINATION TO KEEP UP PRICES.

Consul John C. Covert reports from Lyon that the discussion during the last few years of a French wine trust has recently culminated in an organization, into which a number of large wine growers have entered for the purpose of keeping up the price of their product.

The immediate cause of the combination was the discovery that the yield for the year 1906 would be of a highly superior quality, and the desire to realize something like reasonable prices for it. Two years of the last decade the prices were so low that dealers lost money. The prices were governed not by the producers, but by the manufacturers in adulterated products. It is accepted among wine growers of France that the average cost of producing a hectoliter of wine (about 25 gallons) is between 9 and 10 francs (franc=19.3 cents). As it has happened twice within the last ten years that wine at the vineyards has brought only about half these figures the producers lost heavily, and to prevent a recurrence of such losses they have formed the combination. Monsieur Palazi, a wealthy wine grower of the Department of l'Herault, who is at the head of the combination, produces about 75,000 hectoliters of wine per year, or about 75,000 barrels of 25 gallons each, depending upon the weather. He has secured the adhesion of wine growers representing about 15,000,000 hectoliters per year, and expects to be joined by all the great producers of France and Algeria within a few weeks.

This combination sets forth as its purpose to maintain the price of pure ordinary wine at about 3 cents per quart, which in round numbers is 15 francs, or $3 per barrel of 100 liters, or 25 gallons. The fine table Beaujolais will sell for about double these figures, while the high brands of Burgundy and Bordeaux will be maintained at the usual fancy figures, according to the demand. The combination entered into is to affect the ordinary wines, and is intended to protect the several million producers who make a few hundred barrels of ordinary

wine yearly. Bankers have agreed to advance money to the small farmers, who depend for their livelihood upon the immediate sale of their wine as soon as it is barreled, and they will thus be enabled to hold it until the price has reached the figures desired.

It is stated that several large wine growers have lost from 75,000 to 100,000 francs per year during two or three seasons on account of the low price of wine, and they have organized the present combination purely as a matter of self-preservation.

RHINE VINTAGE.

REDUCED YIELD AND HIGHER PRICES IN GERMANY.

According to Consul G. E. Eager, of Barmen, the result of the Rhine vintage of 1906, now come to its close, is, generally, a very poor one.

It varies greatly, according to the more or less successful efforts of combating the ravages of the *peronospora* by sprinkling the vineyards with a solution of copper and chalk. The Rheingan, Palatinate, and neighboring districts were also badly infested by the "saurworm," which destroyed whatever had been spared by the *peronospora*. The crop in many places was not worth gathering. For instance, at Rüdesheim, where the usual yield of a vineyard of 38 acres is 3½ stücke, or 4,200 liters (a liter being 1.05 quarts), only 1,800 liters were obtained. Rhein-Hessen fared somewhat better, but the crop remains below a half one. The Moselle and Saar districts have again been fortunate; although the yield varies from one-third to two-thirds of an average one, the result is considerably better than in any other district. Certainly, nowhere had more strenuous efforts been made to combat the *peronospora* than here, and they have been rewarded. As the quality has been greatly improved by the excellent weather all through October, the must is everywhere being bought up at good prices, and especially those paid for the Moselle and Saar product are quite unprecedented, and much higher than those paid for the vintage of 1904. Brisk business is being done in the older wines, principally on the Rhine and in the Palatinate, where the stocks of the vintners have recently been greatly reduced.

GRAIN TRADE.

INDIAN WHEAT CROPS.

OPPORTUNITY FOR SALE OF AMERICAN MILLING MACHINERY.

Consul-General William H. Michael writes as follows from Calcutta on the wheat crops and exports of India and the need of modern American flour-milling machinery:

The crop statistics of upper Burma show that there are 35,000 acres of wheat under cultivation there. The yield is stated to be 506 pounds per acre, which would be a yield of 175,000 hundredweight. The yield of the southern Shan States is estimated to be 555,008 hundredweight, a total of 730,000 hundredweight for home consumption and export. It is estimated that 30,000 hundredweight would meet the demand of home consumption and 100,000 hundredweight the

requirement for seed. This would leave 600,000 hundredweight for export. The exports of wheat from Burma, however, during a period of five years have been insignificant compared with the wheat exports from all India. The following table shows the exports of wheat, in hundredweight, from India and Burma during a period from 1900–1901 to 1905 and the value thereof:

Year.	Quantity.		Value.	
	From India and Burma.	From Burma alone.	India and Burma.	Burma alone.
1900–1901	50,021	95	$100,277	$138
1901–2	7,321,818	Nil.	10,853,068	Nil.
1902–3	10,292,150	109	15,051,190	186
1903–4	25,911,312	2,502	36,963,182	3,477
1904–5	43,000,502	7,598	59,686,894	8,726

The imports of wheat flour, on the other hand, go to show that hitherto the absence of modern and improved thrashing machines and of flour mills was greatly felt. It is, however, a noteworthy feature that the import statistics of wheat flour show a perceptible decline in later years, due, no doubt, to the erection, recently, of machines to clean wheat, principally by mercantile bodies, and to the introduction of several wheat-grinding mills into Hopong and Taunggyi, in the southern Shan States. The imports of wheat flour into Burma have been:

Year.	Quantity.	Value.
	Cwt.	
1900–1901	6,374	$14,333
1901–2	25,264	48,755
1902–3	20,886	42,157
1903–4	15,076	32,477
1904–5	4,018	8,674

There is considerable Washington, Oregon, and California flour imported into Burma and Calcutta, none, however, of the finest grades. Most of the flour used in India is made by the Indian mills of Indian wheat, and makes dark-colored bread, which is heavy and sticky compared to American bread of good quality. Indian wheat flour, however, resists the ravages of weevil better than the American article. A great improvement in flour made of Indian wheat would result from the use of the best American machinery. One mill thus equipped would create a demand for flour thus made which would force other mills to put in similar machinery.

SWISS SHORTAGE.

CONGESTED TRANSPORTATION TIES UP NEEDED CEREAL SUPPLIES.

Consul George Gifford, of Basel, calls attention to the anomaly faced in Switzerland of a country threatened with a grain famine when it is quite well to do. He writes:

The following statement from the "Neue Zürcher Zeitung" is given as evidence that even the United States, as the chief grain producer and seller of the world, has a decided interest in the efforts now made

to improve still further the navigability of the Rhine between Rotterdam and Strassburg, and to restore the long-neglected waterway between the latter port and Basel.

The business of providing Switzerland with grain seems to be threatened with a serious crisis unless a speedy remedy can be found. The importation of grain is effected almost exclusively by two lines—by the Rhine and by rail from Genoa. By the Rhine are forwarded 500,000 quintals (approximately 2,300 tons, or 1,833,330 bushels), destined for Switzerland. In consequence, however, of abnormally low water there is a complete stagnation of river traffic. So for the present we can not reckon on this source of supply. And the situation is not less serious on the Genoa route. At this season of the year the port in question needs 1,500 cars for the transshipment of the grain arriving by sea. As a matter of fact it disposed of only 600 during the first half of October, and there has resulted an incredible accumulation of merchandise in the harbor. Thus the question of transportation becomes daily more complicated and difficult. As as aggravation of the situation comes the fact that there exists in all upper Italy the same scarcity of cars, with the consequent disorder, stagnation, and weeks of delay in all directions. The Italian railways hold back in a quite unauthorized manner thousands of freight cars of foreign origin and use them exclusively for internal traffic. Of 325 cars which the Gotthard road recently lent the Italian lines for the especial purpose of bringing grain from Genoa to Switzerland not a single one has been returned. And the longer the trouble lasts the worse it becomes. A few days ago the Zurich Produce Exchange found that the existing stock of grain in Switzerland is sufficient for twenty-seven days; but as it is constantly diminishing and the additions made to it over other routes than those mentioned are trifling, it is far too small in proportion to the daily consumption of the country, amounting to about 38,000 bushels. Should this wretched condition continue it might bring upon the country a veritable calamity.

It should be noted that the Zürich paper's reference to the importation of grain by the river Rhine applies only to the stretch from the mouth of the stream to Mannheim. At this last point merchandise is now transshipped and conveyed by rail to Basel. Only last summer the water route from Strassburg to Basel was reopened, and several barges of coal were landed here by the German company, which is supported not only by enterprising Swiss citizens, but is subsidized by the Confederation, by the canton of Basel, and several other cantonal and municipal governments. A landing has been built near the Alsatian frontier, and it is expected that in a short time it will be possible and profitable to bring grain and other freight from the seaport as well as coal from the lower Rhine directly to Switzerland. When the "corrections" of the river have progressed so far that the stream becomes navigable during the greater part of the year such difficulties in provisioning the country as are now said to exist must disappear.

AUSTRALIAN CROP.

WHEAT HARVEST PROMISES LARGEST CROP ON RECORD.

Consul-General J. P. Bray, of Melbourne, reports under date of October 14 that the prospects in the wheat production of Australia pointed to a record harvest. Harvesting in South Australia was general in November in all the States excepting Tasmania. The consul-general says:

If the weather conditions remain favorable it is estimated that the Australian production for 1906–7 will be 81,000,000 bushels, Victoria being credited with 30,000,000, New South Wales with 26,000,000, South Australia with 20,000,000, and other States 5,000,000 bushels. The yield in 1903–4 was 74,150,000 bushels, in 1904–5 54,437,000 bushels, and in 1905–6 58,000,000 bushels.

FLOATING ELEVATORS.

ODESSA NOW HAS MODERN LOADING EQUIPMENT.

Vice-Consul A. W. Smith forwards from Odessa a Russian newspaper statement that the grain exporters there have lately given a great increase of business to the floating elevators for the loading of cereals on board the foreign steamships:

Since the beginning of the new grain campaign the number of these elevators has perceptibly increased, partly owing to the languishing grain trade at Kherson. The elevators collect for all the operations performed by them 8 kopeks per chetvert (1¼ cents per hundredweight), while, if done by hand, the work would cost about 15 kopeks per chetvert (about 2¼ cents per hundredweight). Of such elevators there are now nine in the port, owned by two companies. Each of these elevators can transfer about 35,000 puds (or about 630 short tons) and all nine together about 300,000 puds (i.e., about 5,400 short tons) per diem on board the foreign-going steamships.

SUGAR PRODUCTION.

PRESENT OPERATIONS IN CUBA.

THE COST OF MANUFACTURE—PRODUCTION OF ALCOHOL.

Consul Max J. Baehr, in a report from Cienfuegos, figures the cost of sugar production in Cuba as follows:

The price of 100 arrobas of cane placed at the mill is $2.60. Admitting that salaries, wages, and other general expenses for handling 100 arrobas are 80 cents to $1.20, the latter depending upon the size of the plantation, its resources, location, or, say, on an average of $1, and that the yield of sugar is 10 per cent (the average obtained in the last two crops), the total cost of an arroba of sugar would be, including the value of the cane, $2.60 plus $1 divided by 10, equaling $0.36; and if we calculate the cost of transportation to the nearest shipping port, on an average 5 cents per arroba, the result would be that an arroba of sugar delivered in the warehouses on the coast will cost $0.41, or at the rate of $3.57 per 100 kilograms (kilogram=2⅕ pounds), without including interest on the capital and accumulation of the same.

The alcohol industry, an offspring of the manufacture of sugar, and which permits molasses, a residue of said article, to be utilized, attained at one time an important place in the industries of the island, during which period alcohol for export to South American countries was produced in large quantities. Subsequently the import duties placed upon the article by Argentina and Uruguay, the principal consumers of Cuban alcohol, were greatly increased, with the object of protecting their own product, since which time the production has been reduced to the amount necessary for home consumption only. In the province of Oriente there are a number of distilleries where rum of excellent quality is made, especially the famous Ron Bacardi.

Although it is difficult to furnish accurate information relative to the cost of producing alcohol in Cuba, it can be stated that 100 kilograms of molasses testing 50° yield 33 liters of alcohol of 42° Cartier,

and if alcohol is made from cane juice it will require to obtain 25 pipotes (173 American gallons) of 40° Cartier, 17,000 arrobas of cane, which, at the price of $2.60 per hundred, will cost $442, and calculating salaries, wages, price of packing cases and hauling to the nearest port, and the interest and return of the capital, taxes, etc., at $367, the total cost of 25 pipotes will be $809, or $32.36 each, or 19 cents per gallon. The market price of a pipe of 40° alcohol fluctuates between $42 and $48, according to quality.

BRITISH WEST INDIAN SITUATION.

ISLANDS HOPE FOR CONTINUANCE OF BRUSSELS CONVENTION.

Consul W. W. Handley, writing from Trinidad, says that great pressure is being brought to bear upon the Imperial Government by the grocers and confectioners of England for the abrogation of the Brussels convention, or at least for British withdrawal from observance of its terms. The consul continues:

The abolition of bounties has been clearly shown to have had a beneficial effect on the sugar produced in the British West Indies, although the advantages have not been so great as originally anticipated. The planters here are still striving hard to minimize the cost of production, and in some of the smaller islands, where modern machinery has not yet been introduced, the revenue barely balances expenditures. In the event that the Government should eventually withdraw from the convention, it is possible continental beet growers would again revert to the old system of bounties which almost ruined the West Indies at a time when factories were not so well equipped as they are to-day.

It is true that Trinidad, British Guiana, St. Lucia, and Antigua, which are now operating comparatively modern factories, may be able to continue the struggle for a few years longer, but who can doubt that with the smaller profits that will accrue, the days of the sugar industry will be numbered.

As far as Trinidad is concerned, the bulk of its sugar goes to Great Britain, which took in 1905 20,558 tons of vacuum pan sugar and 404 of muscovado, and Canada coming next with 15,210 tons of the former and 34 of the latter. Not a ton was sold in the United States last year, owing to the competition of the Cuban and Porto Rican sugars, but during 1904 America purchased $236,833 worth of Trinidad sugar. Canada, however, is still a good customer, having bought last year this island's sugar to the value of $991,614, and there is probability of the market there extending in the near future. It is the earnest hope of most of the sugar producers of the West Indies that the Brussels convention may long continue to be observed by the countries of Europe. At all events, if the convention is to be torn up, so far as Great Britain is concerned, notice can not be given until September next year. The outlook, though far from being bright, is nevertheless not gloomy, and the average West Indian is more inclined to hope than to despair. If the sugar planters of the West Indies are wise they will pay more attention to fruit as a concomitant product with cane, and devote some of their idle acres to its cultivation, and also to the establishing of fruit-canning factories, the results of which have proven so profitable in the northern islands.

BEET SUGAR IN SPAIN.

PRODUCTION DURING THE PAST SEASON.

Consul-General B. H. Ridgely, of Barcelona, furnishes a statement that during the third quarter of 1906—July 1 to October 31—334,776 tons of beets entered the beet-sugar factories of Spain, from which 25,028 tons of sugar were produced. During the same period of 1905, 277,757 tons of beets entered the factories and 19,672 tons of sugar were produced.

There are 55 factories, large and small, refining beet sugar in Spain, but all of them are regulated, if not virtually operated, by La Sociedad Azucarera (or sugar trust) of Spain, which has its headquarters at Madrid. The most important factories are in the Province of Granada, where there are at least a dozen refineries, including the large ones known as La Vega, Santa Juliana, San Isidro, Nuestra Señora del Rosario, and Nuevo Rosario. There are also two or three important refineries in the Province of Madrid, and 10 of more or less importance in the Province of Zaragoza.

PEANUT CROP.

SITUATION AT MARSEILLE.

GOOD YIELD REPORTED FROM AFRICA AND INDIA.

From the frequency with which inquiries are being received from American dealers in peanuts by Consul-General R. P. Skinner, of Marseille, he says it would appear that there is a considerable shortage in the United States at present, and that importations from Europe will be necessary. Mr. Skinner continues:

My best information is to the effect that the new crops, both in India and Africa, are excellent, and prices being quoted for future delivery are certainly weaker than those now prevailing. The nuts shipped from India are invariably decorticated, and can scarcely be considered for the American market, although answering the requirements of the Marseille oil manufacturers satisfactorily. The Spanish crop, although excellent for edible purposes, is not sufficiently important to have a distinctive place in this market, so that the only other source of supply in which the United States could be interested is the African West Coast. The nuts from there are always shipped in the shell, and are decidedly the best and highest priced reaching France, where the crop is chiefly absorbed. My information is that there will be from 150,000 to 170,000 tons of new crop West Coast nuts for export. Practically none of these nuts have yet come to hand, but large shipments are expected from now on. My last available quotation on West Coast nuts, dated November 23, is as follows: Rufisque $5.50, Gambia $5.31, Bas de Côte $5.12, all per 100 kilos (220 pounds). These prices are all 58 cents per 1000 kilo higher than those of twelve months previous.

ALGERIA'S PURCHASES.

Consul James Johnson, of Algiers, reports that the commerce in peanuts in Algeria consists entirely in imports, as none are grown in

the colony, at least for commercial purposes, and there is a considerable consumption. The average yearly importation amounts in value to about $80,000, of which some $70,000 come from Spain, the rest arriving from Marseille and grown chiefly in the French West African colonies. Surprise is frequently expressed at none being grown in Algeria, but it appears that the trials made have not been successful from a pecuniary point of view, and that the culture has been abandoned in favor of other crops.

AMERICAN SHORTAGE.

ONLY HALF A CROP REPORTED—PROBABLE IMPORTS.

Indicating a shortage in the new American peanut crop, Holmes & Dawson, of Norfolk, Va., estimate a yield of 53⅓ per cent based on the crop of 1905 (which was estimated by the American Nut Journal, of Petersburg, Va., at 14,000,000 bushels).

Excessive rains and storms did great damage and the half crop harvested is of inferior quality. Many fields were so badly damaged that no attempt was made to secure the nuts. The 1905 crop was the largest ever made, and while the trade throughout the country handled more than ever before in the history of the business, yet this was not sufficient to take up the entire crop, there being about 125,000 to 150,000 bags carried over. As to importation of peanuts, they can be laid down in the United States, after paying duty, at about 4½ cents. It is reported that the crop in Japan is short of previous seasons and that Africa will likely have an average crop.

DECADENCE OF CULTURE.

Concerning the culture of peanuts, the Indian Trade Journal says that "within the last few years this crop has, both in India and America, ceased to be as profitable as it once was," and calls attention to the complaints of the United States Department of Agriculture on the annual planting of nuts on the same land, the lack of proper rotation of crops, etc., so that now instead of an average of 50 bushels per acre, with frequent yields of over 100 bushels, the average in the peanut section is not over 20 bushels, while the cost of cultivation has been but slightly reduced. The Trade Journal adds that the files of the government of India's proceedings concerning the decay of the groundnut industry contain somewhat similar complaints, and efforts were made to stem the degeneration that had for some time been taking place in the seed used, and to combat the fungoid disease known as "tika," that was killing the plants in Madras and Bombay.

SPANISH MARKET.

HIGHER PRICES—OIL ALSO IN GREATER DEMAND.

Consul-General B. H. Ridgely, writing from Barcelona, says that as the season for the shipment of peanuts is now commencing the following remarks on the trade may be of interest to American buyers:

Peanuts are extensively cultivated in the Spanish Province of Valencia, and in the town of that name most of the purchases are made. Consumers in Spain complain of the ever-increasing demand from England, and more recently also from the United States, which is steadily

driving local prices upward. This year, owing to the shortage of the olive crop, prices for peanuts are expected to rule very high and a steady advance is anticipated, as the oil crushers will be much larger purchasers than usual. In this connection, it should be understood that peanut oil is considerably used in Spain as a substitute for olive oil for certain domestic purposes. The first offers for peanuts which have come on the market have been quoted at 19 pesetas ($3.66) per 50 kilos (110 pounds) for "Corriente" quality (two nuts per shell), and 24.50 pesetas ($4.62) per 50 kilos (110 pounds) for superior quality with three to four nuts per shell. These prices are free on quay, including sacks.

During last season the prices of hulled peanuts fluctuated between 53 and 58 pesetas ($10.20 and $11.20) per 100 kilos (220 pounds), the present quotation being 57 pesetas ($11), free on quay, including sacks. When the crop is at all damaged or discolored by rain or damp it is usual to shell the nut at once, and there is then, of course, a larger quantity of hulled peanuts offering than otherwise. In order to obtain these nuts on the most favorable terms, it is necessary to visit the small farmers throughout the Provinces of Valencia and Castellon and buy up their crops against cash payment before they fall into the hands of speculators.

WALNUT YIELD.

FAIR OUTPUT AND GOOD PRICES IN FRANCE.

Consul C. P. H. Nason, of Grenoble, from which district about $500,000 worth of walnuts are annually exported to the United States, reports that the crop, which had been estimated below the average, proved to be a fairly good one. The consul writes:

Because of the previous low estimates prices ruled high, reaching 90 francs ($17.37) per bale of 100 kilos (220.46 pounds) for the Mayettes, or best table nuts. The total yield for the year 1905 is placed at about 30,000 bales of Mayettes and about 35,000 cases of Chabertes (smaller nuts), 25 kilos or 55 1/8 pounds to the case. The total value of the Mayettes for the year is placed at $430,679. The value of these nuts sent to the United States amounted to $367,308, showing that the producers here find by far their largest market in the States for this best quality of walnuts.

The average cost of these nuts delivered in New York may be estimated as follows: 100 kilos, first cost at center of production, 65 francs ($12.55); carriage to railroad station, $0.29; freight to Havre, $1.02; loading on ship, $0.15; ocean freight, $1.04; bank discount and other expenses, $0.68—making a total of $15.73.

MODE OF PURCHASE AND SALE.

The purchase and sale of nuts is done by merchants who live in the nut districts or by agents of houses in Grenoble, Marseille, Bordeaux, and sometimes New York, who are in the field during the nut harvest.

There is, however, no syndicate of the producers, or nut growers, to fix the prices in advance. In California, where the production is now large and constantly increasing, but where the nuts are said to lack

somewhat in the rich flavor of the French nuts, there exists a syndicate of nut buyers, through whom orders are given even before the price is decided upon. At the harvest time the different growers carry their nuts to the storage houses of the syndicate, where are registered their respective quantities and qualities. If the total quantity falls short of the orders received, deliveries are made to buyers pro rata. About the 20th of September in each year a meeting of the producers is held at Los Angeles to fix upon a uniform market price for the season. In doing this, account is taken of the harvest prospects in France as forecasted upon the request of the Government by the consul at Grenoble. Once the price is fixed, buyers must accept and abide by it. The price varies from 10 to 14 cents a pound.

In France, in the department of the Isere, it has been found difficult to form such a syndicate, and for the reasons that, aside from some distrust among the cultivators, the quality of the nuts, the local climate, the nature of the soil, the individual care bestowed upon the trees, are so many varying factors to give different values to the nuts, as between one commune and another, and even between neighboring properties. The producer, too, has the advantage over the producer in California of receiving payment for his nuts at once, the merchant assuming all expense of immediate handling and transportation.

MEXICAN PECANS.

CROP ALMOST A TOTAL FAILURE.

Consul-General Alfred L. M. Gottschalk, of Mexico City, reports that Mexico's pecan trade with the United States appears to have been very unsatisfactory this year, owing to certain peculiar conditions which, in the north of the Republic especially, have made the crop almost a total failure. The consul-general writes:

From Monterey there has been a falling off of over 400,000 kilos in the exports. Farmers throughout the country seem to be at a loss to account for the particular conditions which during certain years make the crop a perfect failure practically throughout the country. In Mexico the pecans are not gathered from cultivated, but from wild trees, the best section for this crop being generally admitted to be the north of the Republic. The nuts are exported to the United States in large quantities, chiefly to candy manufacturers. During average years some 20 centavos Mexican silver is paid per kilo for the nuts, but this year the prices have in some instances reached as high as 48 centavos Mexican silver (23 cents United States currency). Our Guadalajara agency reports that the last prices there were 4.50 Mexican pesos ($2.24) per arroba of 25 pounds, and that last year the shipments from that particular agency's district consisted of nearly 5 cars in the shell and two other smaller lots of picked or shelled pecans. As against 7 invoices of last year 20 carloads have been shipped this year through the consular agency at Guadalajara.

INDIA'S SEED CROPS.

THEY BRING LARGE REVENUE TO THE COLONIAL EMPIRE.

Responding to an American inquiry, Consul-General W. H. Michael, of Calcutta, furnishes information about the Indian product of castor seed and oil and other seed crops of that country, as follows:

During the fiscal year 1905, India exported 1,461,000 hundredweight, and during 1906, 1,299,000 hundredweight of castor seed, valued at $35,364,000, most of which went to the United Kingdom. There has been but little increase in the acreage during the last six years. The largest amount of the product was from the crop of 1902–3, which amounted to 1,752,000 hundredweight. In addition to the export of castor seed there is a large annual export of castor oil. During the eight months—from January 1 to August 30, 1906—there were shipped from Calcutta 945,891 gallons.

The exports of the principal descriptions of seed are shown below by fiscal years, the values in 1906 being as follows: Linseed, $13,718,333; sesamum, $4,897,666; rape seed, $4,059,666; cotton seed, $3,406,000; castor, $2,622,333; and poppy, $2,007,333.

[Quantity of each seed in hundredweight.]

	1902.	1903.	1904.	1905.	1906.
Linseed	7,328,000	6,328,000	8,616,000	11,182,000	5,789,000
Rape	6,925,000	3,927,000	4,343,000	5,155,000	1,994,000
Cotton	2,086,000	3,974,000	2,677,000	2,529,000	3,891,000
Sesamum	2,447,000	3,733,000	3,513,000	2,517,000	1,685,000
Earthnuts	1,085,000	1,036,000	1,922,000	1,674,000	1,374,000
Castor	1,324,000	1,752,000	1,567,000	1,461,000	1,299,000
Poppy	934,000	966,000	1,315,000	1,363,000	797,000

Of the total, Bombay shipped last year $20,393,000, or 57.7 per cent; Calcutta, $7,739,000, or 21.9 per cent, and Karachi, $3,655,000, or 10.3 per cent. Linseed goes chiefly to the United Kingdom, Germany, and France; rape seed to Germany and Belgium; sesamum and poppy seed to France and Belgium; cotton seed and castor to the United Kingdom and earthnuts to France. [Calcutta dealers in seeds are named by Mr. Michael, and the addresses are on file at the Bureau of Manufactures.]

GERMAN COFFEE ROASTING.

ELECTRIC HEATING MACHINES ARE NOT IN FAVOR.

In response to inquiries from the United States concerning coffee-roasting methods in Germany, Consul-General Frank Dillingham, of Coburg, writes:

Electricity is not generally used for coffee roasting, and when used it is only for "reklame" purposes. Coffee which is roasted by electricity does not have a better flavor than that roasted by other means. Electric heating has been found to be much more expensive than that by coal or gas, and has no merit over either of the latter, the loss

from shrinkage being practically the same by either process, say 18 to 19 per cent, depending somewhat on the coffee itself. I have heard of no patented German made electric coffee roasters, but there were a year ago, and may be now, several of American manufacture in use in one or two of the larger German cities, and it was claimed by the agent who introduced them that they produced a more delicate and aromatic flavor than could be secured by the old process of roasting, but it is now claimed by connoisseurs that that is not so.

The taste of the coffee does not depend upon the fuel used in roasting it, but on the quality of the bean itself, as well as on the degree of roasting. If coffee when not quite ripe is over roasted, even though it be of the finest quality, it loses its delicious aroma and assumes a bitter or burnt taste. The loss by shrinkage in roasting depends upon the quality of the bean and the degree and duration of roasting. In fact, the best or "fleshy" bean shrinks less while being roasted than a porous bean does, and the loss in weight is greater when the bean is darkly roasted than when lightly roasted. One of the largest coffee-roasting firms in Germany informs me that if the machines for roasting are so constructed that they burn evenly, empty quickly, and cool quickly so that the bean does not require a further roasting, the results are always satisfactory, both as to loss by shrinkage, cost of roasting, and quality of aroma, irrespective of the kind of fuel used.

OILS AND ESSENCES.

OLIVE AND GERANIUM PRODUCTS IN ALGERIA.

Consul James Johnston, of Algiers, reports that there are about 4,500 oil producers in Algeria. He writes:

About one-third are found in the mountainous district of Kabylia. The other principal centers are the arrondissements of Sidi Bel Abbès and of Tlemcen, in the department of Oran, and the arrondissement of Algiers, in the department of the same name. The mills in the last-named section are all in the hands of Europeans and are generally provided with all the most recent improvements, and produce oil of the highest class.

Producers of all classes have no wish to enter into direct relations with foreign buyers. Almost all the high-class oil goes to France, where contracts are generally made for the entire production, and the smaller producers sell to local houses who pay cash on taking delivery at the mill. The bulk of all classes of oil, with the exception of the very considerable quantities consumed in Algeria, goes to French houses, the exports thereto in 1905 being valued at $1,060,000, while to Germany went $32,000 worth, to the United States $16,000, to Great Britain $13,200, to Belgium $9,000, and to Holland $7,000 worth.

Foreign buyers are generally required to open a credit here, which pays the amount of the invoices on production of the bill of lading and a marine insurance policy. No superior oil is exported directly from Algiers to the United States. It is generally the second pressing which goes to soap manufacturers and for other industrial purposes. The finer oils are sent through French houses, and very probably in many cases without mention of their origin. Algerian oil has generally more taste of the fruit than Provençal, especially that from

the Tlemcen district, which constitutes an advantage or the reverse according to its destination. After minute inquiry I am inclined to believe that no oil intended for exportation is adulterated in any way, but for local consumption it is largely mixed with cotton-seed or other tasteless oils.

DISTILLED ESSENCES.

Essence of geranium and other distilled essences are almost entirely produced in the district immediately surrounding Algiers. Boufarik, in the Mitidja plain and about 22 miles from this city, is the central market. [The chief exporters are named by the consul, the addresses being on file at the Bureau of Manufactures.] One factory is conducted in the former monastery of La Trappe at Staouéli, where distillation of all sorts of essences is carried on on a large scale. Exports to France in 1905 amounted to about $310,000, and to all other countries to a little over $30,000.

TOBACCO.

CROP RESULTS IN PROVINCE OF ALSACE-LORRAINE.

Consul J. I. Brittain, of Kehl, quotes some interesting statistics concerning the tobacco culture in the province of Alsace-Lorraine.

During the year 1905, 8,154 cultivators planted to tobacco 3,173 acres against 9,203 cultivators with 3,344 acres in 1904. This decrease in the area under cultivation arose entirely from the low price paid for tobacco in 1904. During the four years previous the average price paid for tobacco fell to $10.25 for 200.46 pounds. It rose in 1905 to $12.37 per 220.46 pounds. This advance was largely due to the good quality of the tobacco which matured under exceptionally favorable conditions. The quantity of dry tobacco harvested amounted to 8,060,666 pounds in 1905 and 5,982,000 in 1904. The average per acre in 1905 was 2,540.39 pounds against 1,785.54 pounds in 1904.

The harvest suffered from hail in a few communities only. In Baden the loss exceeded $250,000. In the district of Colmar the harvest was purchased by the merchants and manufacturers of Alsace-Lorraine, Baden, and Wurttemberg, the price being from $12.85 to $13.33 per 220.46 pounds for first quality, and for second quality $11.42 to $12.37 per 220.46 pounds. In the district of Hagenau the price paid was $11.42 to $14.76 for second quality, and for first quality about $15.25 per 220 pounds. In the district of Strassburg the price paid was $8.57 to $12.85 for second quality, and about $11.00 for first quality per 220.46 pounds.

In Alsace-Lorraine there are 13 bonded warehouses for the storing of tobacco.

CIGARS AND CIGARETTES IN FRANCE.

Consul-General Frank H. Mason, of Paris, reports that a recently published analysis of the budget of the ministry of finance, which includes receipts and expenditures down to the close of the year 1905, furnishes some interesting evidence on the consumption of tobacco for smoking purposes in France. According to this exhibit the cigarette and pipe are rapidly superseding the cigar in the estimation of French consumers of tobacco.

In 1870, the year of the Franco-Prussian war, 2,700,000 kilograms (5,670,000 pounds) of cigars were consumed in France, and this figure was still further increased during the five or six succeeding years. Then the cigar began to lose favor, and its use slowly declined until in 1904 the total consumption was 2,610,000 kilograms (5,481,000 pounds). On the other hand, the consumption of cigarettes has increased from 16,000 kilograms (33,600 pounds) in 1870 to 2,200,000 kilograms (4,620,000 pounds) in 1904. The whole amount of tobacco consumed in France as cigarettes and smoked in pipes during the year 1904 was 28,340,000 kilograms, equal to 59,514,000 pounds avoirdupois, or more than ten times the weight of cigars consumed during the same year.

ROADSIDE FRUIT CULTURE.

GERMAN HIGHWAYS USED BY GOVERNMENT TO ADVANTAGE.

Consul Jay White, of Hanover, discusses the subject of governmental fruit culture along the highways in that German province:

The province owns 1,976 miles of highways, along which there are 175,794 fruit trees. If these were set out 80 to an acre they would form an orchard of about 22,000 acres. Where the temperature and other conditions have been thought favorable pear, cherry, plum, and apple trees have been set out on either side of the public ways. Apple trees have proven the most practical and have been used to the greatest extent. The custom dates from the early part of the last century. During the past decade it has been found necessary to replace some of the old trees, and many more must be substituted in the near future.

A large portion of the roads controlled by the districts has been constructed since 1870. These trees are younger than those on the highways, and hence less productive and profitable. Most of the stock planted has been furnished by the main provincial nursery at Lohne. The province and a few districts also own some smaller nurseries, but up to the present time these have not produced sufficient stock to supply the demand, and a large number of young trees has been purchased from private growers.

INCOME FROM THE ENTERPRISE.

The gross provincial income from the fruit harvested has averaged $22,495, though in recent years it has often run up to nearly $40,000. In the near future many of the districts will also receive considerable income from these sources. The statistics indicate an average gross income from each tree of 12.61 cents, about half of this amount being spent for maintenance.

In 1895 the province purchased an estate of 403 acres for the purpose of growing nursery stock for the highways. Small fruits and those intended to be trained on trellises are also cultivated with the object of furthering fruit culture and improving the varieties. It is the intention that the nursery shall be used to demonstrate to fruit-growers and farmers the best manner of treatment and indicate the varieties that under certain conditions give favorable results. At the present time the estate is cultivated with 195 acres of timber land, 42 acres of nursery, 10 acres of park, 8 acres of asparagus, 48 acres of general cultivation, 45 acres of grass, and 12 acres of moorland.

The total cost up to May, 1903, amounted to $23,697. In all 40,894 trees, valued at $10,575, have been issued to be planted. The expenses in excess of the sums charged off for trees, etc., amounted, with 4 per cent interest, to $13,504. The total stock in different stages of growth amounts to 106,574 trees. The profit per tree seems very small, but shade is afforded in summer, the roadbed is freer from dust, and other benefits follow. To some extent rain and snow are retarded slightly from washing soil from the banks into the roadside ditches. The care of the trees gives employment to numerous persons, attracts the attention of all classes to the better varieties of fruit, and interests many in fruit culture and the best manner of caring for the trees.

INDIAN AGRICULTURAL PROGRESS.

EXPERIMENTS WITH FRUITS, VEGETABLES, SPICES, AND DRUGS.

Consul-General W. H. Michael reports on the government's progress in India in aiding agriculture and horticulture in the following letter from Calcutta:

The British India government has an experimental farm located near Shillong, Assam, about 300 miles northeast of Calcutta. On this farm various experiments have been made, extending over a series of years, with fruits and vegetables. During the last year a severe frost did some damage to the trees and a large number suffered from the ravages of insects. It is considered too early yet to indicate the results, but so far the best progress has been shown by pear trees from Saharanpur and by the English cherry, fig, peach, and almond trees. In connection with the propagation of fruit trees, with a view to their distribution among the cultivators, successful experiments were made in grafting the English apple and pear on the indigenous stocks and in grafting English grapes on a wild native stock. Special attention has also been given to popularizing the cultivation of rhubarb and asparagus, which have been found to do well at Shillong, and with this object seedlings and seed were distributed and bulletins issued in Khasia.

A tropical plantation has also been started on the southern slopes of the Khasia Hills for making experiments in certain tropical products. A number of spices, fruit drugs, and other products are under trial, but it is too early yet to speak of results, as it will be several years before the trees begin to bear fruit. They appear at present to be doing well and some of the papaya and banana trees have flowered and are bearing fruit. Two varieties of Caravonica cotton trees were grown, and a sample of lint obtained from No. 2 variety was valued at a higher rate than is obtained for Assam cotton. Some of the cotton trees are now in vigorous growth.

CANNED GOODS.

VEGETABLES AND FRUITS—WEATHER EFFECTS ON CROPS.

Mr. Hugh S. Orem, president of the Booth Packing Company, of Baltimore, while in New York arranging for a business trip to Egypt, speaking of the general conditions of the vegetable and fruit packing

trade at this time, said to a representative of the New York Commercial Bulletin:

There are various reasons for the state of worry and suspense in which packers have been held during all these months, but the chief cause of the trouble has been the unusual weather conditions which have prevailed throughout the season. Nature is a capricious damsel, and when we expect one thing from her we are apt to get the reverse. I think the whole situation may be summed up as a case of weather. Take peas, for instance—the first thing in which Baltimore canners are interested. This is a most delicate crop, requiring plenty of moisture and sun, but not too much of either. But this year it got, first, too much rain, and then at a critical time came ten days of dry hot weather, which seriously curtailed the quantity and affected the quality of the crop.

In the case of tomatoes, there was again too much rain, amounting to floods in many districts, during the planting season, and more rain and still more during all periods of development up to and including the ripening of the crop. The same thing happened with spinach. Rain during the planting season washed out the crop, and when the weather permitted the working of the fields it was too late to hope for a sufficient crop. Then came a period of drought, which effectually ruined the hopes of canners of making any sort of a pack.

The peach crop, likewise, was a failure because of too much rain, which came at the wrong time. I visited one orchard of 50,000 trees that were so heavily loaded with matured fruit that they had to be propped up, but the peaches were the color of mud—rotten and unfit for use. A peculiar thing about the demand for southern peaches this year is that, whereas we expected it to be heavy from the East, fully four-fifths of what has been sold has been taken by the Middle West. This was undoubtedly due to the failure of the Michigan crop and the short pack on the Pacific coast. I don't know of anything left in the hands of packers that is quite as good as peaches.

HOP CROP.

ANNUAL YIELD IN GERMANY.

Consul William Bardel reports from Bamberg that the German Imperial Statistical Bureau publishes its official report on the total amount of hops raised in Germany during the year 1906 in hop gardens of not less than 5 hectares, or 12,355 acres. He writes:

The crop in American hundredweights is reported as follows: Bavaria, 264,375; Alsace, 74,176; Wurttemberg, 52,106, and balance of Germany 46,420, making a total of 437,077 hundredweight. The hop crop for the four years preceding is reported by the same bureau as 600,985 in 1905, 456,831 in 1904, 434,315 in 1903, and 463,228 in 1902. After my previous estimate the weather became so propitious for the ripening hops, particularly in Bavaria, that a much larger crop was gathered in the end than could at that time be reasonably expected. This circumstance principally accounts for my original estimate being so much below the volume realized.

MINING AND METALS.

THE WORLD FUEL MOVEMENTS.

AUSTRALIAN COAL OPERATIONS.

VEND OR COMBINE FORMED IN THE NEWCASTLE DISTRICT.

Consul F. W. Goding reports that the largest commercial scheme ever formed in Australia has recently been completed in New South Wales, which includes all but one of the coal mining companies in the Newcastle district and the shipping companies controlling the sea carriage of interstate commodities.

There are 31 collieries and 6 steamship companies represented in the combine. The "vend" will control the coal mined, will regulate the sales of coal, and, with the exception mentioned, the entire trade operations of the northern district will be directed and controlled. It will also regulate the output of each mine, and will be in a position to generally improve trade conditions, but those interested state that its object is more to prevent unnecessary competition among themselves than to raise the price of coal above a reasonable figure. For the foreign trade many factors have been taken into consideration, the arrangement being much more elastic than that for the interstate trade.

RESTRICTING THE OUTPUT.

The output is governed by an agreement by which each mine is allowed to mine coal equal to the average annual output for the past three years. If a colliery sells more coal than the amount allotted by the "vend," such colliery must pay into a fund 98 cents for each ton so sold. The money in this fund will be used to compensate owners whose output do not reach the full percentage allotted to them, at the rate of 98 cents per ton for each ton below their allotment; but the penalty imposed and the compensation made will vary with the grade of the coal, there being three grades. After January 1, 1907, the minimum price of the highest grade will be $2.43; of the second grade, $2.25; of the third grade, $1.70 per ton. There is a committee of management in Newcastle and a board in London, England. Through the latter all contracts for coal destined beyond Australia are arranged.

The formation of this "vend" is welcomed by owners, miners, and the public alike. For many years there has been disastrous competition among the colliery owners of this district, many of the mining troubles that have occurred undoubtedly being traced to that cause, hence the unanimity of the feeling regarding it. To the Newcastle district, and to the State, the increase in price will mean a great deal, for every 25 cents of a rise in value, per ton, will represent about $1,250,000 per year added to the total amount received for its coal. To what extent the formation of the "vend" alluded to conflicts with the Federal anti-trust act remains to be seen. However, the Federal prime minister

has stated on the floor of Parliament that as formed the "vend" will not be affected by the enforcement of the Act, while the best legal talent is of opinion that the "vend" has nothing to fear therefrom.

COAL LOADING IMPROVEMENTS.

Among experts it has been recognized for some time that the appliances for loading vessels with coal in Newcastle have been antiquated.

As an instance, in England the coal cars with a capacity of 15 tons are so manipulated that 500 tons per hour are loaded at each berth, while in America 2,000 tons per hour is usual. In Newcastle 1,000 tons of coal are loaded per hour at 18 berths, showing how far behind the system is. The engineer in charge has evolved a system of gravitation which will allow vessels to be fed without cessation or interruption until loaded. Under this system 40 or more coal cars, of an average capacity of 7½ tons, will be unloaded at each crane per hour, two cars being handled at the same time. This means that a vessel will be fed at the rate of 640 tons per hour at each crane instead of 80 tons per hour as at present.

There is a strong probability that the capacity of the coal cars will be increased to 15 tons in the near future, which would allow the handling of 1,200 tons per hour at each berth, reducing the cost of loading coal at this port by 20 per cent. The government is determined to bring the system of loading coal here up to the highest point of efficiency, in which effort all those having any connection with the commercial interests of the port heartily second.

WELSH PATENT FUEL.

GOOD EXPORT TRADE TO NEW WORLD AND ELSEWHERE.

Consul D. W. Williams reports from Cardiff that the exports of Welsh patent fuel for 1906 greatly exceeded those for 1905, and the magnitude of the boom is indicated by the following statistics:

Cardiff, Newport, Swansea, and Port Talbot, together exported 1,060,617 tons for the first nine months of 1906, an increase of 219,997 tons over the same period last year. Thus, 1906 promises to become the banner year in the history of the industry. This fuel is not only regaining its hold in old markets, but is also winning new ones, a cargo loading at Swansea at this writing for Guayanilla Bay in the West Indies. There was a large increase in the exports to Vera Cruz during the first half of the year, and the demand at tropical ports in America and elsewhere is growing, because the fuel is better adapted for storing and handling than the raw coal.

The first exports from Cardiff were 5,167 tons, made in 1860, and they have grown steadily, so that the Welsh exports in 1905 amounted to 1,095,048 tons, and the entire exports of the United Kingdom to 1,237,784 tons, of which 25 per cent went to North and South America. Nine plants have been in operation for a decade or more, and the present boom has led to the establishment of a new plant at Cardiff which proposes to make a superior article, under a patent, which includes the use of a gastight chamber for the heating and intermixing of the ingredients. The dock charges consist of 24 cents for stowing and 4 cents per ton for wharfage.

Owing to the superior quality of the "smalls" used, the Cardiff fuel commands the highest price, $3.83 to $3.89 per ton. The price fol-

lows that of coal, and since the best Cardiff coal touched $4.14 the last week in October fuel will continue to advance. The Swansea brands made from cheaper "smalls" bring $3.16 to $3.22, and find a larger sale. Notwithstanding the activity in the industry, the profits at present are smaller than they might have been, owing to old contracts and the high price of small coal. In 1899 some of the companies paid as high as 12½ per cent, and one at least paid 10 per cent each year down to 1905. With the expiration of the old contracts the profits will grow, for the plants are working to the limit now, and the Italian State railways are calling for tenders for 250,000 tons to be delivered from October to March.

The Welsh fuel makers enjoy the following advantages over all others, and Americans in particular: They can easily secure a large supply of small coal that is comparatively smokeless; the coal field on which they depend is largely within 25 miles of the seaboard; their plants are located at ocean docks which make a specialty of exporting coal; they enjoy cheap ocean freights to all parts of the world.

BRITAIN'S COAL EXPORTS.

EXCEED THOSE OF 1905 BY MILLIONS OF TONS.

Consul F. W. Mahin reports from Nottingham that the sale of British coal to foreign countries made a remarkable advance during 1906.

The cause may in the future be mistaken for the repeal of the export duty on coal, but the fact is that the year's foreign sales far exceeded those of previous years before that duty was removed on November 1. Prior to that, the increase of British coal exports over the whole of 1905 exceeded 6,000,000 tons, and would have been still greater had not many shipments been purposely delayed till after November 1 to escape the tax. The gain in 1905 over 1904 in coal exports was only 1,250,000 tons.

The great increase of exports in 1906 is attributed partly to Germany's decreased output, making that country unable to supply the usual demands upon its mines from Spain, France, and other countries, and partly to enlarged consumption in those countries. These now look to Great Britain. This trade with those countries is in a large part merely a return of what was lost after the imposition of the export duty of a shilling a ton in 1901. The duty has yielded about $10,000,000 a year. It is hardly probable that it caused a loss of that amount to British mines in value of exports, but there is no question that a serious loss did result. With that loss fully retrieved, and an immense gain added this year, even before the removal of the duty, there is naturally a sanguine feeling in mining circles over the export trade, for at least a strong hope is justified that Great Britain may now retain her reestablished trade with continental countries, even should Germany again produce a large surplus of coal for export.

RUSSIAN COAL DISCOVERY.

ANTHRACITE FIELD IN THE GOVERNMENT OF ORENBURG.

Consul Alexander Heingartner, of Riga, advises that large deposits of anthracite coal have been discovered in the Russian territory of the Orenburg Cossacks.

The depth is only 56 inches and the vein extends about 133 miles north to south, and at about the same distance in a southerly direc-

tion from the great Siberian Railroad. The great value of this discovery lies in the following facts:

(1) The proximity of the coal fields to the Ural iron and steel industry, which is at present mainly dependent upon wood and charcoal for fuel, and therefore otherwise incapable of a further expansion. (2) In view of the probable early exhaustion of the south Russian iron-ore mines, estimated to take place in about twenty to thirty years, the Ural district is destined to become the largest producer of iron and steel in the Russian Empire; the above newly discovered coal fields will therefore become of inestimable value to the district. (3) The discovery in the neighborhood of the coal fields of deposits of brown hematite, an ore well adapted for smelting processes.

IRON AND STEEL PRODUCTION.

POSITION OCCUPIED BY THE UNITED STATES.

According to the "Rheinish-Westphalian Times," a leading technical paper of the German Empire, the world's iron production in 1903 was 40,004,837 tons; in 1904, 45,225,928 tons; in 1905, the last year for which figures were furnished, 53,997,965 tons. The United States is striding forward so fast in the production of iron that it promises to not only lead the great iron-producing countries, but to lead the rest of the world combined. The following table gives the ton production of the countries named during the years indicated:

Country.	1903.	1904.	1905.
	Tons.	*Tons.*	*Tons.*
United States of America	18,009,252	16,497,033	22,992,380
Germany	10,085,634	10,103,941	10,987,623
England	8,811,204	8,562,658	9,592,737
France	2,827,668	2,999,787	3,076,550
Russia	2,402,500	2,855,032	2,765,000
Austria-Hungary	1,321,695	1,450,658	1,514,840
Belgium	1,299,211	1,307,399	1,310,290
Sweden	489,700	516,900	527,300
Spain	380,284	420,000	385,000
Canada	265,418	270,249	468,003
Italy	45,000	88,965	140,825
Japan	36,515	112,328	190,375
India	30,756	40,978	47,042

While the absolute gain in the United States is almost equal to the entire gain between 1904 and 1905, the advance in Canada in 1905 over 1903 is remarkable. The output nearly doubled. Still more remarkable is the advance in Japan, a gain in the two years of nearly 600 per cent. At the present rate of production the world's visible supply of iron, 10,000,000,000 tons, according to a Swedish expert's estimate, must soon be exhausted. Luckily these figures are believed to be far from the truth, as the United States alone is said to have more than 4,000,000,000 tons in mines that have been located. If this is true, it is more than probable that the vast deposits of Canada, Mexico, Central and South America were neglected by the Swedish scientist.

IMPORTING PIG IRON.

HEAVY ORDERS SENT FROM UNITED STATES TO SCOTLAND.

Consul Rufus Fleming forwards from Edinburgh an extract from The Scotsman of November 19, showing the sudden American demand for Scottish pig iron. It reads:

In the course of the last few weeks the American demand for Scottish pig iron has reached dimensions which have not been experienced for years, and which probably not a single member of the trade ever expected to see realized. Years ago the United States were liberal buyers of Scottish brands, and they have always taken more or less, latterly very much less; but owing to their own enormous production the market has long ceased to be one on which producers in Scotland could reckon. Suddenly, however, a change has come over the situation; apparent indifference has given place to activity, manifested in a rush of orders from all the consuming centers in the Eastern States, and covering present and prospective wants which sellers on this side find great difficulty in meeting. In fact, they are unable to do so completely.

It is calculated that since the beginning of the month (November 1 to 19) firms in Boston, Philadelphia, Baltimore, and New York have contracted with Glasgow houses for the shipment of between 30,000 and 40,000 tons, mostly for foundry qualities, but also of hematite. Last week quite 10,000 tons were put through, and orders for many thousands of tons have been declined by makers because of their inability to give delivery. Prompt dispatch is desired in all cases, and as room in the regular steamship lines has been almost wholly taken up, it has been found necessary to charter special steamers, a thing that has not happened in the memory of the present generation of shippers. Besides what has been arranged for on Northern States' account, a cargo of over 4,000 tons has been sold for New Orleans, the first of the kind fixed since 1879.

If the American demand for Scottish iron is maintained into 1907 (and there are strong inquiries to point that way) a condition of things may be created which will prove most embarrassing for home consumers. There are no stocks, public or private, of consequence to fall back upon, and which always were a stand-by in the past. A year ago there were about 92,000 tons in reserve, and at the opening of 1900 there were 277,000 tons.

STEEL TRUSTS IN EUROPE.

DRASTIC MEASURES TO ENFORCE OBEDIENCE IN GERMANY.

The Paris correspondent of the London Commercial Intelligence, writing about the International Steel Syndicate, says:

The headquarters of the German Stahlverband are at Dusseldorf, while those of the International Steel Syndicate are in London. It is in London that all orders for exportation are centralized and divided among the participating manufacturers of the syndicate—that is, among those producing rails, joists, sleepers, etc., for exportation. As regards "home sales" the participating manufacturers of each country have a "free hand," not only as regards the amount of their production, but its selling price also. I can vouch for the statements which follow—made by one of the largest ironmasters of Germany in reply to questions as to the working of the German Stahlver band.

"All the German ironmasters," said he, "except one of small importance, who is not willing to submit to the discipline exacted from the members of the union, have undertaken not to produce more than a fixed quantity, and not to execute foreign orders other than those forwarded to them. During the duration of their contract—that is, during a period of three years—they can not enlarge their factories.

If one of them should improve his method of production, so much the better for him. We sell his steel as best we can, that is all."

"But should one of them sell his products direct—that is, without passing them through the syndicate?" I asked.

"Ah! that means a fine of 20 marks per ton should we discover the fraud. And, remember, there is no means of escape. Each member of our Verband has deposited in our hands a check, varying in amount, but in some instances amounting to hundreds of thousands of marks, and from this sum we take, if necessary, the fines to which he has become liable. For instance, should we learn that one of our members has delivered direct 10,000 tons of rails or joists to Peru we immediately take 200,000 marks from his guaranty. Such discipline may appear hard, but it is necessary, and German manufacturers must become accustomed to it."

A German correspondent of the same journal says: "The German Iron Ore Syndicate, in spite of rising prices, has already sold its output for the first quarter of 1907, and high prices are being cheerfully paid for both Nassau and foreign ores. The price of cast iron has been raised from 10 marks for smelting, puddled, and steel iron, greatly to the surprise of the consumers, who have no recourse but to pay."

SWEDISH PIG IRON COMBINATION.

Consul R. S. S. Bergh, of Gottenborg, says that it is reported that the recently organized Aktiebolaget Jernexport is intended to be a combination of several of the largest Swedish iron works producing pig iron and iron-ore brickettes, as well as of producers of steel and Lancashire iron, for the purpose of reducing their competition with one another in foreign markets.

It is said that sales will be made direct by the Swedish works as well as from the Metallurgiska Patentaktiebolaget's plants in other countries. It is also the intention to obtain new markets for Swedish export of iron, and particularly for ore brickettes. The company will establish offices in Sheffield, Hamburg, and Paris, and at some place in the United States not yet decided upon. Besides this the company will also have agents in Japan, India, and China.

STEEL RAIL ORDERS IN BELGIUM.

Consul J. C. McNally, of Liege, reports that the Belgian Government recently contracted for 15,000 tons of rails for use on its State railways, of about 88 pounds to the yard, and at a uniform price of $30.68 a ton, which was the bid of the Belgian companies, those of France being about $33.77 a ton. This contract will keep the Belgian rail mills busy for some time. They have also booked orders for 6,000 tons for Chile, 3,000 tons for the Argentine, 1,100 tons for Switzerland, and 900 tons for Holland. Extensive contracts are about to be closed with Greece and Norway, but as yet the quantity and price has not been made public.

MALAY TIN OUTPUT.

DECREASED PRODUCTION AND MARKET MANIPULATION.

The report of the commissioner of mines of the Federated Malay States showing the output of tin for the first nine months of 1906, forwarded by Vice-Consul G. E. Chamberlin, of Singapore, shows a decrease in the output as compared with 1905 of 1,656 tons.

The following table gives the output of all the tin-bearing States of the Malay Peninsula for the first nine months during the years 1905 and 1906, expressed in tons of 2,240 pounds:

	1906.	1905.		1906.	1905.
Perak	19,271	19,740	Pahang	1,515	1,502
Selangor	11,975	12,889			
Negri Sembilan	3,452	3,738	Total	36,213	37,869

According to the market reports of shipments from the Straits Settlements for the first nine months of 1906, there was shipped 43,262 tons, or 7,049 tons more than the commissioner of mines reports the output of the mines. This shows conclusively that there was a large amount of tin on hand, held back to control the market and take advantage of the higher prices which have prevailed during the past few months.

NICARAGUA'S MINES.

REVIVAL OF THE INDUSTRY.

Vice-Consul Arthur O. Wallace, of Nicaragua, reports regarding the mining industry of Nicaragua as follows:

There has been a remarkable revival of activity in the mining industries, shown by the fact of the large importations of mining machinery, by the reworking of abandoned mines, and by the discovery and opening up of new properties.

It may be safely said that the returns from this industry will be in a very few years one of the principal resources of wealth for the country at large and to the Government in revenues, perhaps even more than agriculture and stock raising, which have been somewhat abated of late, the former, on account of unfavorable climatic conditions and the latter through the consequences of a trust formed by exporters, and also the prohibitive tariff imposed by the neighboring Republic of Costa Rica, the principal buyer of Nicaraguan cattle. This monopoly is so manipulated against stock-raising interests by fixing such prices for the product as to make the once very prosperous business rather unprofitable now.

In spite of the numerous drawbacks, there is every reason to believe that matters will change for the better in the very near future.

MACHINERY TRADE.

MODERN SHOP EQUIPMENT.

FRANCE.

AMERICAN MACHINE TOOLS PREFERRED—INDIFFERENCE TO ORDERS—GERMAN METHODS.

Special Agent Arthur B. Butman furnishes the following report on American machines and machine tools in France, which, owing to admitted superiority, are given preference in many cases. French purchasers complain of slow delivery, and in some instances to insecure packing. The report contains a number of points that will be interesting to manufacturers of machinery of all kinds.

In spite of the fact that in France there are upwards of 6,000 manufactories of iron and steel, so great are the requirements of her industries that a large number of machines and machine tools are annually imported from foreign countries. The imports of machinery from the United States are constantly increasing, as will be seen from the following statistics. In 1903 the importation of American machinery was valued at $5,161,978; in 1904, at $6,127,171, and in 1905, at $6,721,418. American machine tools of all kinds find a ready market throughout the country.

I am informed that rarely a machine shop is to be found in France unequipped, partially at least, with American machine tools. The good reputation of American machines and tools give them preference with the French buyer, who presents, however, the complaint of "slow delivery."

In Paris I found the center of distribution for the country of machinery and machine tools made by Massachusetts, Connecticut, New York, Ohio, Illinois, and Wisconsin firms. One of our strongest competitors is the German, who imitates almost to perfection, cuts prices, and makes quick deliveries. Machines of German manufacture, however, are held in less repute than our own.

GERMAN METHODS OF PUSH.

The thorough preparation made by German manufacturers is illustrated in the following statement recently published in an English periodical:

> The rapid growth of German foreign trade is largely due to the "fitness" of the man sent out to get business. Before sending a salesman abroad he is thoroughly trained for the position. He must work in the draughting room to learn something about the design of the machines, but principally to lay out and make a correct scale drawing of any complete plant. Then he must work as assistant to the inspector, who runs and tests each machine before it is shipped. Here he learns how to operate the machines. He next goes out as a helper to the expert who sets up and starts the machines in the customer's works, and later is sent out alone to do so. Right here is one place where the German gets ahead of the American. When he sells machinery, he aims to have it erected and started by his own expert. What a world

of trouble this avoids for both the buyer and the seller. We all know the countless complaints that vanish into thin air as soon as we send an expert from the factory to see why a customer's machine is not giving satisfaction. The reader must not get the impression that the salesman's education consists of looking on while the inspector tests machines, or while the expert is erecting a new outfit. On the contrary, this part of the business must be learned thoroughly. The salesman must work at it a year or two, especially at erecting machines.

Here is the real education. Far from the shop, without assistance, he is thrown entirely on his own resources. About this time he is given a chance to show what he can do as a salesman in his own country. He now studies foreign languages, and, if he is successful as a salesman at home, he is sent abroad equipped with catalogues in the language of the country he visits. When such a man looks at his customer's work, he can tell exactly what machine is needed, and the best and cheapest way to do the work.

SLOW DELIVERY A HINDRANCE.

As before stated, the great detriment to a larger increased trade in American machinery in France is the very slow delivery made by the manufacturer. In conversation with heads of importing houses this fact is constantly reiterated. American manufacturers do not give sufficient attention to their export trade. I find some importers of the opinion that Americans for the most part are too busy at home to care for foreign trade; but, if perchance business becomes a little quiet in the home market, then they grow anxious to extend their foreign custom. In the meantime our competitors, always anxious, have entered the market, which we could have held against other comers, and secured a foothold there. I was informed by one house of orders now placed in the United States for 260 machines of various kinds, some of these orders having been placed as long ago as August, 1905. It would seem that the foreign trade should have better attention if we wish to hold the markets we have gained.

PRICES AND PACKING.

Foreign agents should always be notified at once of any advance in price. Neglect on the part of the manufacturer to do this causes great disadvantage to the agent, who, having contracted to deliver a machine at a certain price, finds, on sending the order to the United States, that it can not be filled at figures previously quoted, the price having advanced. The agent, however, must deliver the order as previously contracted, bearing the loss personally or lose the customer. This reported negligence on the part of our manufacturers does not tend to encourage the foreign agent in undertaking to handle new lines of American machinery.

The very important factor of packing should receive careful attention from the exporter. I am informed that many times machines are exported to foreign countries insufficiently protected against breakage, thereby frequently causing serious inconvenience and delay. I was shown by one importer a machine, weighing approximately 300 or 400 pounds, which had just arrived from the United States. The only protection for transportation in this instance was a crate of ¾-inch boards. The small adjustable parts, some ten in number, were simply wrapped in paper and tied on and about the machine. These small parts should always be packed in a box and securely fastened inside the crate. Fortunately, in this particular case, all arrived intact, but one can readily understand the amount of delay and inconvenience sometimes caused the importer by breakage or loss of attachments through bad packing methods. The duty on machinery varies, according to materials and degree of finish, from $2.31 to $13.50 per 100 kilograms (220 pounds).

AGRICULTURAL IMPLEMENTS AND BUILDER'S HARDWARE.

The home manufactories of agricultural implements in France number about 15,000, but the agricultural interests of the Republic create a good home as well as foreign market. The total valuation of agricultural implements imported by France from the United States for the year 1905 was $2,817,998, this valuation being divided as follows: Mowers and reapers, and parts of, $2,556,573; plows and cultivators, and parts of, $55,723; all other, $205,702. I am informed by importing houses in Paris that the sales for American agricultural implements will show better returns for the present year than in 1905, the crops for 1906 being larger than usual.

Small farming tools of American manufacture are in good repute and find a fair sale. Germany is a strong competitor for this trade, quotes cheaper prices, and is prompt in delivery of goods.

The French-manufactured small tools are also lower in price. The American products give good satisfaction, and the only complaint is "slow delivery."

France imported from the United States in 1905 builder's hardware (all kinds) to the amount of $377,327. I am informed that the market for these articles might be largely increased in this country if proper attention was given by the manufacturer to the French orders. The products are well liked, but here again the same complaint regarding slow delivery is heard.

GREAT BRITAIN.

INABILITY TO FILL ORDERS PROMPTLY THREATENS AMERICAN SUPREMACY.

Consul Albert Halstead, of Birmingham, advises that the market for standard American machine tools gained in the United Kingdom, and the Continent through their superior excellence, is threatened, chiefly because of the inability of American manufacturers to make early deliveries, the demands for their products being in excess of their present possible output. The consul continues:

Because of the present long delays in filling orders for American machine tools, British manufacturers are, to a large extent, buying tools that can be delivered immediately, rather than postpone the reconstruction of their works. British tool makers, who have heretofore pushed their own designs, noting the inability of American machine tool makers to fill orders promptly, as well as the financial success of several British firms in copying American tools, are now spurred on to make tools on American models. The prices for American standard machine tools have also advanced 10 to 15 per cent in the last twelve months, so I am informed by an agent who is in a position to know.

The delay in the delivery of any reputable American lathes and milling machines averages now from three to six months. Until quite recently these tools were kept in stock and a delay of six weeks was unusual. The delivery of universal milling machines is now made in from six to nine months and gear-cutting machinery often can not be obtained under twelve months. When they can not be assured of getting standard American machine tools promptly, British and other foreign manufacturers buy those they can secure as soon as ordered.

If such substitute tools work well, they will naturally order similar tools when they require more, which means permanently lost trade for the American tool maker.

ENGLISH PROFITS FROM AMERICAN PATTERNS.

Every machine tool-making industry in the United Kingdom is reported to be overhauling its patterns and bringing them up to date; in short, the British tool makers are Americanizing their tools. One large firm, by copying American machine tools, is reported to have made half a million dollars in 1905, and its business is said to have so increased this year as to indicate a profit of half again as much. Several firms have quadrupled their plants in the last four or five years. This process of Americanizing models applies not only to the Midland counties but to Lancashire, Yorkshire, to the northeast of England, and to Scotland as well.

No British machine tools, so I am informed, are as yet so good as the American, and the latter are still the best in the world, although the British tool makers are materially improving their products and more nearly approaching the best American models. British machine tools are now from 10 to 25 per cent cheaper than the American, and are said to last as long. Whether the higher cost of raw materials and the demand of British machinists for higher wages will force British tool makers to raise their prices I can not say.

British machine tools are not so accurate as the American tools. However, where extreme accuracy is not needed the English tool, which now has all the adaptability of the American, is said to be practically as good. If the British manufacturer desires accurate lead screws, within very fine limits, and requires very accurate generated beveled gearing, he must obtain them from the United States. As an indication of the effect of the American manufacturers' inability to deliver machine tools within a reasonable time, I am told that an agent for such American machines recently lost one order for them involving an expenditure of $16,000, as well as several other good orders.

AGENTS PLACING ORDERS IN EUROPE.

British manufacturers and engineers in general are reorganizing and improving their machinery. They are also enlarging their plants. Wonderful activity is seen in the manufacture of cycles and motors, and the latter trade has grown, especially in the United Kingdom, in the past two or three years. One seller of machine tools in another part of England, who has done very well as the agent of an American machine tool company, is having tools of that style made in Germany and in the Yorkshire district of England, and I am told that other agents of American tools in the United Kingdom are about to follow the same practice.

GERMANY.

INCREASED IMPORTS AND EXPORTS.

In view of the new tariff conditions with which the German tool machine industry has to reckon since March 1 last, the import and export of such machines presents many interesting phases, says the American Association Bulletin of Berlin. Figures show exports to

have considerably increased. Germany imported in 1903, 18,927; 1904, 34,421; 1905, 39,549; and in 1906, 65,538 tool machines. Of these 8,335, 18,405, 24,430, and 45,033, respectively, were American machines.

Germany exported in 1903, 165,722; 1904, 187,405; 1905, 239,371; and in 1906, 300,692 machines, mostly to Russia and Austria-Hungary. Thus three years ago imports of American machines did not amount to quite one-half of the total, but during the last three years they amount to more than two-thirds of all such imports.

FARM IMPLEMENTS.

GERMANY.

SALE METHODS THAT SUCCEED IN EMPIRE.

In forwarding names and addresses of the leading German importers of agricultural implements in the Magdeburg district, which are placed on file at the Bureau of Manufacturers, Vice-Consul J. L. A. Burrell writes:

American agricultural implements are highly esteemed here and several large American concerns are enjoying enviable success. These firms, in nearly every case, have a representative devoted solely to their interests at some large center, such as Berlin, who has under him a number of native agents throughout the country with whom he keeps in constant touch. Expense is not spared to make a good showing at agricultural exhibits, horse fairs, etc., and abundant and attractive literature in the German language is distributed. The sending of catalogues in the English language to the firms named or to others in Germany would be a useless expense. The catalogues should be in German, and weights, measurements, and prices stated in their German equivalents.

PLOWS THAT ARE NEEDED.

Consul H. W. Harris, of Mannheim, responding to an American inquiry, covers the question of the use of plows in Germany, and writes:

The first impression would be that American plows should find a ready sale in many parts of Germany, and especially a well-constructed one-horse plow suitable for the many small farms. No other implement in use here is more primitive in appearance than the average German plow, with which the American farmer would under no circumstances be content. It is clumsy, with the front end of the wooden or metal beam usually resting on a pair of wheels 18 or 20 inches in diameter. The moldboard is poorly shaped, and half pushes and half turns the earth before it. An American farmer would know at once on seeing the average plowed field here that the plow used was a poor tool.

It is to be remembered, however, that German lands, having been worked for centuries and made as mellow as gardens, are generally plowed shallow and do not require so perfect a plow as our American clay soil or stiff sod. The teams used may be two horses or cows, or

a horse or cow. The driver may be a man or a boy, neither very skillful, or it may be a woman; in this locality quite frequently it is a woman. The German plow, guided and kept in place for the most part by the wheels at the point of the beam, suits the average team and driver better than an American plow would be likely to do. At all events the plow remains and will probably do so for some time to come.

THRASHERS, MOWERS, AND HARVESTERS.

At the agricultural fairs better plows are to be seen but they are generally modifications of the type described. In my judgment, were the demand for a better plow created, as it doubtless will be some time, the German manufacturer would fit himself to furnish the implement at prices with which our manufacturers could not hope to compete and pay freight, duty, and other charges. Native hay rakes, grain drills, cultivators, harrows, cream separators, etc., are gradually forcing ours out of the field simply because large concerns in all parts of Germany are fitting themselves to manufacture such implements as they see are in demand. The steam thrasher, a somewhat modern machine, illustrates this. One concern in this city has long since sold more than ten thousand of these machines. The demand was noted and it is being supplied at prices with which our thrasher companies probably do not care to compete. Our mowers and harvesters sell here chiefly because they are manufactured in the United States on a scale so large that the German manufacturer, building a comparatively small number of machines, finds it practically impossible to compete.

American agricultural implements enjoy a high reputation in Germany, writes Consul-General Thackara. He gives the addresses of importers of such goods at Berlin, which can be obtained from the Bureau of Manufactures.

FRANCE.

AMERICAN PLOWS SELLING WELL.

Consul R. P. Skinner makes the following report from the city of Marseille:

American plows are sold very generally in France, and the principal difficulty facing manufacturers who desire to engage in this business is that of securing general agents who are not already under some engagement with manufacturers who have been in the trade for a long time. One Marseille firm sells American plows almost exclusively, stating that the greatest demand is for such as sell at $9.65 to $12.54. Practically all these plows are right handed, with wooden beams. Iron or steel beams add to the weight and increase the cost. Scarcely any French makes are sold, but Germany bids successfully in the heavier models, of which few are sold. My American correspondents should quote prices f. o. b. New York, or, still better, c. i. f. Marseille, and give in their catalogues full details of size of cut, depth below beam, and weight.

One make of American plows, retailing at about $6.17, are sold to the extent of several thousands per year. American prices for the heavy makes are almost prohibitive on account of the high duty. The duty is $2.89 per 100 kilos (220 pounds), imported from the United

States, and $1.73 if of European manufacture. [Names of dealers in agricultural implements at Marseille, furnished by Mr. Skinner, may be secured from the Bureau of Manufactures.]

SPAIN.

AMERICAN EFFORTS BRING SUCCESS.

Vice-Consul Maddin Summers, of Madrid, states that there is a growing market in Spain for American pumps, harvesters, and other machinery. He writes:

Houses and large apartment buildings are being constructed, requiring mechanisms of all kinds. Very little business can be done, however, by sending catalogues, for the people want to see what they are buying. American firms have exhibited agricultural mechanisms and other goods at the annual fairs of machinery and arts in the various smaller capitals of the Peninsula, and the result has been that the sale of harvesters and other machinery has extended to the provinces, whereas formerly the only market was the capital or its suburbs. I make especial mention of the exhibition this year at Valladolid, the center of the wheat district, at which several American houses were represented, and where, I am told, most favorable results were obtained, even though the expense was considerable. [A list of engineers and hardware dealers of Madrid, furnished by Mr. Summers, is on file at the Bureau of Manufactures.]

GREAT BRITAIN.

DECAY OF AGRICULTURE RESTRICTS IMPLEMENT MARKETS.

Consul D. W. Williams, of Cardiff, thinks that Wales does not offer many opportunities for the sale of American farming implements on account of the steady decline of agriculture. The decline in the last thirty years is shown at a glance by the following table, giving the Welsh acreage for the three principal crops and the total arable acreage:

	1876.	1905.
Wheat	94,423	44,073
Barley	153,647	91,243
Oats	242,417	207,929
Total arable land	1,014,151	805,485

It will be seen that the wheat acreage has been cut in two, that the other acreages have diminished greatly, and that the loss in the total arable land amounts to about 20 per cent. The total arable land of to-day is only slightly in excess of the area of Rhode Island. The same condition prevails in the United Kingdom, where the total arable acreage has decreased from 18,035,668 in 1876 to 15,083,388 acres in 1905. The decrease in thirty years is almost equal to the area of Connecticut, and the arable land of the kingdom is now less in area than the State of West Virginia, and decreasing at the rate of about 100,000 acres a year.

When it is considered also that the British farmer is naturally conservative, that the style of cultivating tools used are peculiar to the

people, that farming is not remunerative, and that labor is very cheap, few men earning more than $3.65 a week, it will be seen that the trouble and expense of introducing American implements is greater than in the various British colonies.

AUSTRALIA.

NEGLECT OF MARKETS BY AMERICANS.

The interesting report of Special Agent Harry R. Burrill, relative to farming implements in South Australia, which was printed in monthly Consular and Trade Reports for January, wherein it is shown that American and Canadian agricultural implements control that market, gives an added interest to the following statement showing the exports of agricultural implements from the United States and Canada to Australasia during the calendar year 1905: Exports from the United States, $866,619; exports from Canada, $464,002. Mr. Burrill says that the imports into the colony of South Australia in 1905 were about $175,000 for each. The high percentage of Canadian implements consumed therein is undoubtedly due to the special attention given by the Canadian manufacturers to South Australia.

The fact that American manufacturers export a fairly large amount of agricultural implements to Australasia should be supplemented by the special exploitation of the several colonies, for the colonies, generally speaking, are wide apart, and each demand special attention, even to details, for the implements suitable for one colony may not be suitable for another. Our manufacturers should also be impressed with the fact that the Canadian manufacturers have been and are paying particular attention to the Australasian market, with the result that their exports to those colonies are larger than their exports to any other country.

American manufacturers have neglected the Australasian colonies, and, taking advantage of our dereliction, the Canadians have increased their trade to its present fairly large proportions. Our exports of agricultural implements to all countries during the fiscal year 1905 were nearly $500,000 greater than in 1904, and only $827,500 less than in 1903, the largest exports in the history of the trade. This decrease from the year 1903 is nearly altogether accounted for by our loss of Australasian trade.

EXPORTS FROM UNITED STATES AND CANADA.

The following table for the calendar year 1905 shows that whatever standing Canadian agricultural implements have in Australasia is due almost wholly to inattention to that market by United States manufacturers:

Exported to—	United States.	Canada.
Australasia	$866,600	$464,000
United Kingdom	1,002,200	315,900
France	2,750,800	443,800
Germany	1,474,100	318,800
United States	.....	80,500
Dominion of Canada	1,643,500	.....
All other countries	14,387,100	942,500
Total exports	22,124,300	2,565,500

MEXICO.

LOWER FREIGHT RATES PROBABLE.

Zeferino Dominguez, who has been experimenting with agricultural products on his farm in Puebla, is making an effort to have a reduction made in the freight rates of farming implements from the United States, says the Mexican Investor. He has visited the railroad officials in Mexico City, and says that they have agreed to assist the upbuilding of agriculture in Mexico by shipping farm implements cheaply if an agreement can be reached. Mr. Dominguez believes that a lower freight rate can be secured and that the implements can be secured cheaply by Mexican farmers within a short time.

Mr. Dominguez also expects to assist farmers by explaining his experiments and methods of cultivation to any who ask. It is also his intention to experiment with fruit and ornamental trees and assist in planting orchards on many farms which have nothing of the kind at present. He expects to give information free and assist all he can in securing better conditions for agriculturists.

CANADA.

LOWER TARIFF RATES.

Consul James H. Worman, writing from Three Rivers, says that the proposed reduction in the Canadian tariff by the present Parliament, as just announced by the Minister of Finance, affords a splendid opening for American manufacturers of agricultural machinery, and also for those of edged tools (reduced from 25 to 22½ per cent).

There should be immediate steps taken to organize a trade campaign in the Province of Quebec, but it should be understood that this campaign can not be successfully carried by circularizing. It must be by agents in the field who understand enough of French to be able to communicate not only with the wholesale dealers and retail tradesmen, but also with the husbandmen of the larger farms, so as to create an interest and demand for the American goods.

ELECTRICAL APPLIANCES.

FRANCE.

INTERESTING EXHIBIT AT THE LYONS FIRST MOTOR EXPOSITION.

Consul John C. Covert reports that the Agricultural and Industrial Society of Lyons recently conducted an exhibition for the display of electrical appliances for household purposes, concerning which he writes:

Exhibits were invited from all over the world, but the invitations were not generally responded to, all the exhibits being from French cities. This exhibition was merely a beginning, and it is hoped that the one to be held next year will result in bringing out articles from other countries. It was held in the large hall of the "palais des arts," and the interest it excited among the people of Lyons was sufficient to call out a large crowd every day.

Among the exhibits was a dynamo called a semifixed armature. In

this machine double rotation around a common axis is employed, with the idea of increasing the efficiency by diminishing hysteresis and getting rid of Foucault currents without sacrificing solidity of construction. I can not learn the exact value of the idea shown in this device. There were also on exhibition a number of storage batteries of a kind much used here for a number of years. In these batteries the plates are in the form of hollow cylinders, nested one within the other, negative and positive plates alternately. It is said that these cylindrical forms of the plates prevents their deformation, and thus materially increases the efficiency and the life of the battery.

MANY CLEVER DEVICES.

There were a number of exhibits of the various applications of electricity to heating, foot warmers, chafing dishes, bath-heating apparatus, etc. One of the chief features was small motors for sewing machines, pumping, etc. A Catholic priest exhibited an invention for polishing floors by simply driving a large brush over the surface by electricity. The public was given a good object lesson concerning the detail of the different designs of small motors, but nothing very remarkable was exhibited in this regard.

An electrically driven centrifugal device for use in laboratories was interesting because of the details which had been well worked out to secure ease of operation and to facilitate thoroughness in hastening and for the completion of precipitations through centrifugal action. Electrically driven agitators and bottle-shaking devices for laboratories were shown, some of them with ingenious special devices for securing regular and graduated agitation, said to be useful in the culture of certain germs, bacilli, etc.

There were several very clever devices for controlling motors used for operating recording instruments, meters, etc. Some of them were quite remarkable for painstaking designs and for good adaptation to the work required. An apparatus for the production of ozone was shown in connection with devices for sterilizing water. An electrically heated and regulated dessicating apparatus of a kind for use in laboratories was shown, in which the heat was automatically regulated by the current working contacts in connection with a thermometer or other device based upon expansion.

A portable vacuum dusting and cleaning apparatus was exhibited. It is cased in joiner work, so as to present the appearance of a small and rather comely piece of furniture. It consists of the usual pumps, filters, etc., driven by a motor which develops a quarter of a horsepower, and is inclosed in the general casing. The whole can be easily moved about, so that a small length of hose only is required to reach places in a room.

CLEANING TYPE CASES—REMOVING BOILER SCALE.

In connection with this machine it was remarked that it was especially handy in cleaning the cases in a printing office. For this purpose a special nozzle is used. It has a square opening about the size of a box in the case to be cleaned, and it is covered with a fine sieve-like metallic netting. All the dust in the box is immediately sucked away into the nozzle and the type are drawn against the netting, falling again into the box, after which the apparatus is removed.

An electrically driven device was shown for the removing of scale

from the interior of tubes in water-tube boilers, which was considered remarkable for the great power of the motor as compared with its diameter and the general efficiency of the invention. The motor, by a special arrangement, was made of a diameter small enough to be inserted directly into the tube from which the scale is to be removed, and is nevertheless of sufficient power to accomplish the work with great rapidity. The device is, I am assured, employed with great success, and insures both economy of time and labor, as the scale can be removed very speedily.

This exhibition was useful because it made the public acquainted with the progress that electricity as applied to industry has made, rather than on account of any especially new devices exhibited. It is hoped that the next annual exhibition will bring exhibits from other countries.

GERMANY.

GREAT PROGRESS IN THE INDUSTRY—SKILL IN SPECIALTIES.

Consul-General A. M. Thackera, of Berlin, reports that there was great activity shown in the electrical industries of Germany in 1905.

Not only were the orders for home consumption unusually large, but those received from foreign countries were greatly increased. The value of the electro-technical products exported was $17,850,000, against $15,470,000 in 1904. If to these are added the values of apparatus for measuring, registering, and heating and insulating material, the exports in 1905 amounted to $23,800,000.

In 1905 there were 14,272 metric tons of electrical machines exported, against 13,491 tons in 1904 and 12,459 tons in 1901; 3,129 tons of accumulators, against 2,935 tons in 1901; 343 tons of incandescent lamps, against 266 in 1901; 31.5 tons of carbon, against 12.5 tons in 1901, and 30,545 tons of cables, against 13,202 tons in 1901. The number of plants for generating electricity was 165 in 1895 and 1,175 in 1905. In 1896, for the electric tramways, there were 42 central power stations, 530.6 miles of rails, 1,571 tram cars, and 989 trailers, while in 1905 there were 140 central power stations, 3,523 miles of tracks, 9,034 tram-cars, and 6,477 trailers. It is calculated that during the decennial period the number of electric plants increased 64 times and the horse-power of the motors 30 times.

COMBINATION OF ENTERPRISES.

With the revival of general business in 1903 the German electrical industries inaugurated a spirit of grouping and consolidating of the stronger organizations with a view not only of decreasing the number of concerns competing for business, but also in a large measure to control prices, especially in the larger undertakings. The fusion of the Union Electricitäts Gesellschaft of Berlin, which was the manufacturing licensee of the General Electric Company of America in 1902, with the Allgemeine Electricitäts Gesellschaft brought two strongly fortified industries under one management. The Union Company was practically the foremost on the continent on electric tramway work, the Allgemeine the most powerful in respect to the general line of motors and dynamos, arc and incandescent lamps, and apparatus of all sorts. The amalgamation of the Schuckert works of Nuremberg with

the Siemens-Halske Company of Berlin brought together two of the oldest and best known electrical concerns in the world.

The third group of electrical manufacturing interests has been brought about in the consolidation of the Felton & Guillaume Company, at Cologne—Mühleim on the Rhine—with the Lahmeyer Company of Frankfort. The Felton & Guillaume Company was perhaps the most independent cable manufacturing concern in Germany, but upon the consolidation of the other concerns found its market for cables, etc., limited to small manufacturers and to the foreign markets. Under these conditions it was not unnatural that they should seek a combination with the Lahmeyer Company. The new company has a capital of $13,090,000.

The benefits which have accrued to the German electrical industries from the consolidation and the controlling of prices were almost immediately reflected in the net earnings of the three concerns, to say nothing of still smaller companies which remained independent. Dividends have increased, and in some cases where dividends have not been paid they have been resumed, and the stocks of these various companies hold a very enviable position upon the bourse.

MOTOR TRADE.

INDIA.

CALCUTTA DECIDES ON MODERN PASSENGER AND FREIGHT VEHICLES.

Consul-General William H. Michael advises that a company for the introduction of motor vehicles for passenger and freight traffic in Calcutta has been organized and will soon begin business.

It is believed that it will succeed in time in driving out the bullock carts and wretched "ticcagarris" that have served in an unsatisfactory way the increasing passenger and freight traffic of the city. A Calcutta paper says: "The development in motor conveyance for goods and passengers was sure to come. The capital of the Calcutta Motors (Limited) is to be $400,000. A start is to be made with 10 omnibuses and 10 lorries. If they could add a service of motor cars for hire by time or mileage they would confer a boon upon the community."

There are many cities in India that will make a similar change, which opens a good field for American manufacturers of motor vehicles. The sight-seeing motor car, to be seen in American cities, has not yet been introduced in India, and the demand for such cars should increase from year to year as the stream of visitors in the cold weather increases, as it has been doing for several years. India is so easily accessible now that the bulk of visitors to the East include in their itinerary all points of interest in this great Empire. In most of the historical cities the motor car would be popular and well patronized.

GREAT BRITAIN.

THE BUSY CYCLE AND CAR INDUSTRY.

The London Statist, in reviewing the cycle industry in the United Kingdom in a recent issue, says:

Speaking generally, the year just ended has proved one of the most satisfactory that the trade has yet had—the works have been busier and

the output greater than at any other period. On the other hand, the larger output has been accompanied by a smaller margin of profit than was the case when there was a "boom" in the industry in 1897. So that with a broader basis the trade is in a healthier condition.

The London Economist, in speaking of the motor-car industry of the United Kingdom, says:

The motor-car industry bids fair to become one of our most important manufacturing industries. It may be estimated that the amount of capital now invested in the industry well exceeds $58,398,000, and the total output of vehicles of all kinds by British manufacturers for the current year can not fall far short of 18,000, with an approximate value of $21,899,250. Although British manufacturers entered the field comparatively late in the day they are now turning out cars which in respect of speed, cost, reliability, and finish can not be excelled by the Continental manufacturers. And in this connection it is interesting to note that British manufacturers are beginning to make important progress in their foreign trade, the exports for the first ten months of the current year having been $2,996,133, as compared with $1,750,221 in the corresponding time last year.

NORWAY.

THE NORTHERN MOTOR EXPOSITION.

Consul E. S. Cunningham reports that July 5 to 14 inclusive has been fixed as the date for the holding of the Northern Motor Exposition in Bergen.

Notice of intention of making an exhibit must be filed on proper blanks with the committee before April 15, 1907, as also any information which is desired published in the official catalogue must be supplied by the same date. In a former report it was pointed out that manufacturers other than the Scandinavian to be entitled to compete in the exposition must have a Norwegian agent, but this has been extended to foreign manufacturers having an agent in Norway, Denmark, or Sweden. The committee announce their intention of applying to the Government to have exhibits admitted free of duty, as well as asking for reduced freight rates. There has been arranged a meeting of fishermen of Scandinavia to take place at the close of the exposition, and exhibitors will be given a further opportunity to demonstrate the peculiar fitness of their motors and boats for the fishing trade. [Catalogue of the Bergen exposition can be seen at the Bureau of Manufactures.]

SWEDEN.

NEW INVENTION FOR OIL MOTORS.

Consul R. S. S. Bergh sends the report from Gottenborg that J. Hesselman, a civil engineer in the employ of the gas motor manufacturing firm, Aktiebolaget Diesels Motorer, at Sickla, Sweden, has made an invention by which a gas motor can be reversed by a device within the motor itself, when kerosene or raw oil is used for motive power. It is remarked that if this invention is all it is claimed to be, it is very important and will open a wide field for the use of such motors as marine engines, because they are so easy to handle compared with steam engines.

LEATHER TRADE.

FOOTWEAR IN EUROPE.

AMERICAN MAKES SUPERIOR AND POPULAR.

CHARACTER AND EXTENT OF THE INDUSTRY IN FRANCE—WAGES AND COST OF PRODUCTION.

Special Agent Arthur B. Butman furnishes the following report on the shoe industry in France, in which he gives in detail the cost of manufacture and other points that will interest American manufacturers:

This industry is an important one in France. The factories of the country number about 1,200 and are situated principally in Paris, Lyon, Limoges, Marseille, Nancy, and throughout the southern departments. These factories are in most instances small, but well equipped with modern shoemaking machinery, and in many instances where this modern equipment does not exist there are apparent movements on foot for its introduction. The factories being small their output ranks accordingly, that of the largest, I am informed, not exceeding 5,000 pairs per day, while the average output of all factories throughout the country would not exceed 400 pairs per day each.

The machine-made shoes are the Goodyear and Blake sewn. In many of the factories hand-sewn work is still carried on in connection with the machine work. All grades of shoes are manufactured, from a grade retailing from 9 francs 50 centimes ($1.90) or 10 francs 50 centimes ($2.10) per pair, to one retailing for 35 francs ($7) per pair in machine made; while in hand-sewn work the shoes are sold as high as 60 francs ($12) per pair; the average price, however, is from 15 francs to 18 francs per pair.

The French shoe is long and narrow in shape with very high vamp, a style which does not perhaps appeal to the idea of the American manufacturer for either elegance or comfort. I am informed that the French manufacturers are growing more and more inclined to adopt American shapes, and in fact are imitating the American shoe in every detail possible.

AMERICAN MAKES IMITATED.

The following instance came under my observation: After some difficulty, for the French do not readily open the doors of their industries to inhabitants of another country, I gained admission to a French factory in Paris. The resemblance to an American factory is in many ways marked. This factory is said to be one of the best in France,

though small, its daily production being about 1,000 pairs. A factory of the same size in the United States would be producing at least 4,000 pairs per day, as our method of installing machinery is much more compact, the French manufacturer seemingly wasting a large amount of floor space. While in conversation with the superintendent a workman approached, handed him a shoe, also a piece of sole leather which had been stained and polished to a color as nearly resembling that of the sole of the shoe as possible. I remarked upon the fine appearance of the shoe, which thereupon was shown me. It may not come as a surprise when I state that the article in question was a shoe of a well-known American manufacturer of highest grade footwear. It was being imitated in every detail, even to the polish on the sole. I found in this factory many shapes of American design as well as those of typical French style.

UNITED STATES STYLES POPULAR IN PARIS.

The importation of boots and shoes from the United States to France for the fiscal years 1904, 1905, and 1906 were as follows:

	Pairs.	Value.
1904	30,817	$87,553
1905	21,292	64,723
1906	40,220	126,239

The decrease in 1905 is partially attributed to an increase that year in exports from England which was nearly equal to the decrease in exports from the United States. The figures for 1906, however, show the growing popularity of the American shoe. The sales could be very largely increased if our manufacturers would exhibit the same enterprise that is displayed in Paris by the British, who have a large number of stores not only in Paris but in other cities of France, in which shoes of English manufacture are sold exclusively. In addition to these exclusively English stores there are business houses throughout the city where English shoes form a portion of the stock in trade.

I have no hesitancy in stating that as soon as our American shoe manufacturers are sufficiently desirous of obtaining foreign trade as to be willing to invest the required amount of capital in this way, personally establishing retail stores and carrying on the same under American management, the volume of shoe export trade from the United States will marvelously increase.

I do not believe, among all the manufactures of our great manufacturing country, there is one product which could be more successfully and profitably placed on foreign markets than the American shoe. The popularity of the article is evinced in many ways. Even in the more remote towns one finds a pair or two of American shoes used as the center of advertising attraction.

A sample pair of shoes of American make, exhibited in a window to draw the trade, frequently develops, for the inquiring purchaser, a stock within manufactured in a foreign country other than the United States, but by American machinery. Nevertheless the name in the window has procured for the shopkeeper a customer.

METHOD OF MEASUREMENT.

The French method of designating sizes is altogether different from that employed by the American manufacturer, instance the inclosed

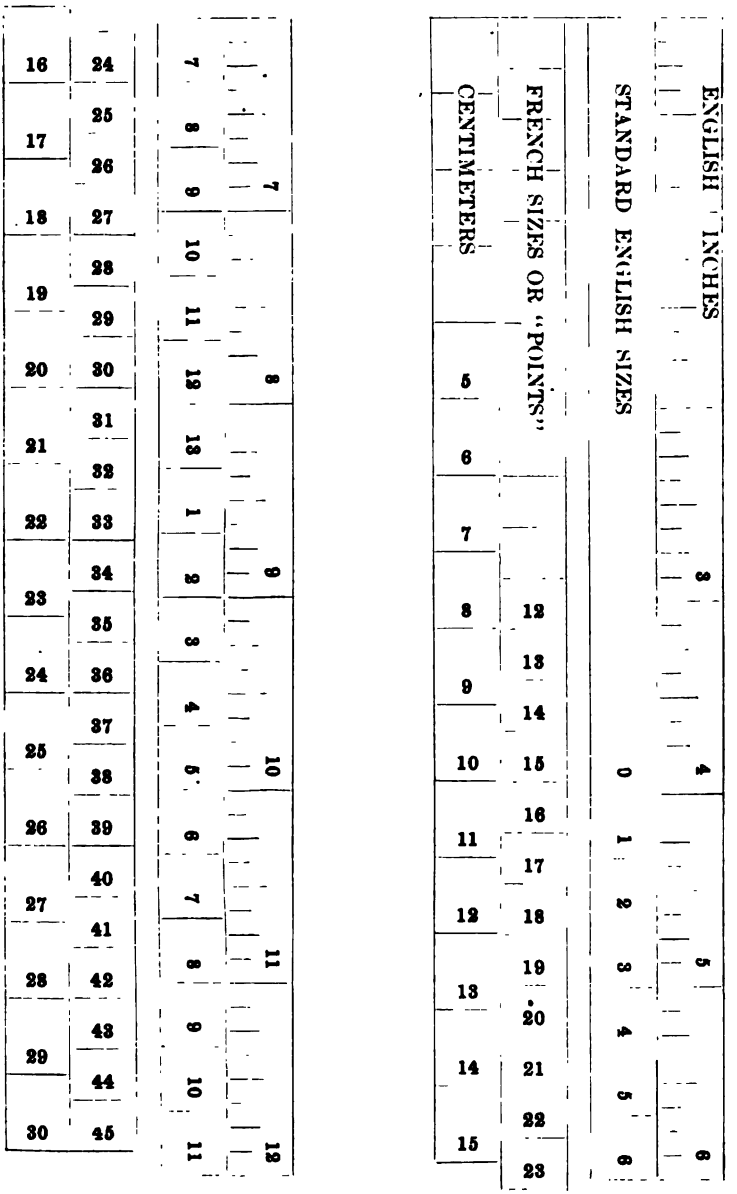

table of measurements. Half sizes are not produced by the French manufacturer. After England and Germany, France is our strongest competitor in the manufacture of boots and shoes.

The French manufucturer designs his product on American lines and exhibits the "Forme Americain." The English manufacturer buys our upper leathers, thereby showing his good sense and business foresight, uses a last of American shape, and places his shoe on the foreign market advertised accordingly, "American leather," "American form."

AMERICAN SHOE STORE IN PARIS.

We are glad to see his product thus advertised, the popularity of our shoes is more strongly proven thereby, while American rights are in no way infringed upon. George E. Keith Company, Brockton, Mass., well-known American manufacturers, have recently established a large and well-appointed retail store in Paris. It is the only exclusively American shoe store in France, in fact on the continent of Europe, established and carried on by the American manufacturer. This firm has been established in Great Britain for seven years, and now has five stores in London, one in Manchester, one in Liverpool, one in Leeds, two in Birmingham, one at Edinburgh, one at Glasgow, Scotland, and one at Belfast, Ireland.

The testimony of the manager of the Paris store, which is the head depot for continental trade, should be of value to American manufacturers wishing to enter foreign markets, coming as it does from a man of several years experience in retail shoe stores in different foreign cities:

> We owe the success of our business to a sincere and constant effort to meet the special needs and cater to the various tastes of the people in the countries to which we have introduced our goods.

STYLES THAT SELL BEST.

Parisian customers are taking kindly to the American product, and the business, though at present in its infancy, bids fair to meet with the same success in Paris as in London.

Shoes are sold by the American firm at the fixed price of 25 and 32 francs ($5 and $6.40) per pair, respectively; the same prices obtaining for both women and men's shoes. "Forme Spanish opera," or the Spanish opera last, a long narrow shape with high vamp and Louis XV heel, is most largely used forladies' footwear, and a button boot is generally preferred for Parisian trade, although laced boots and a few Oxfords are being introduced. Bright and patent kid, McKay; bright and patent kid, Welt; glazed kid and vici, bals, buttons, and Oxfords; glazed kangaroo bals, buttons, and Oxfords are the styles and leathers commanding best sales in women's goods.

In men's footwear, lasts or forms typically French in style, as well as those of American design are used. The grey gaiter top and tan chromeooze, top in buttons, is a fashionable shoe. Patent kid, vici, tan willow, chrome Russia calf (light weight), vici calf, radium calf, and willow calf, bals, vici and patent kid button, and vici Blücher are the leathers and styles employed as the most desirable for men's wear.

HOW TO EXTEND TRADE.

Imitation by local manufacturers forms a strong factor in competition. Even though American trade-marks are registered in foreign countries the laws of some of those countries are not sufficiently strict to prevent infringement upon them. Shoes of several American man-

ufacturers are on sale in many retail shoe stores in Paris, together with goods of domestic and English manufacture. This method of sale, naturally, is not so advantageous to the American manufacturer as the one already mentioned and advised. The interest taken by a foreign dealer in an American product, especially when handling goods of his own nation's manufacture as well, can not be so great as that shown by the American desirous of establishing a firm footing in the foreign market, and having accomplished this to constantly push sales of his product.

As already stated the button shoe for both men and women is often found on the French market and is to-day much more largely produced by the domestic manufacturer than either bals or low cuts. These latter styles are, however, becoming to a degree, popular by introduction in American goods, and their manufacture is now being undertaken in France. I am informed by a reliable boot and shoe importer in Paris that if the American manufacturer could make a shoe of good wearing quality to retail here for 22 francs ($4.40) a suitable market might be found for the same. Shoes of English manufacture retail from 16 francs 50 centimes ($3.30) to 33 francs ($6.60).

The duty on American shoes entering France is 2 francs 50 centimes (50 cents) for bals or buttons, 1 franc (20 cents) for Oxfords or low cuts per pair. This duty applies to both men's and women's footwear, and is levied irrespective of value. The freight charges cost approximately 50 centimes (10 cents) per pair from the United States. Goods are generally purchased thirty days, 2 per cent discount; ninety days, net.

MARKET FOR FINDINGS.

American upper leathers of the following sorts—glazed kid, box calf, willow calf, splits, buff, and grain—are quite extensively used in French factories. The value of importation of those grades for the year 1905 was $543,489.

I am informed that factories established for manufacturing solely shoe findings (box toes, counters, welting, etc.), as are so often found in the United States, are unknown in France. All this work is done as required for consumption of each special factory by the manufacturer of the finished shoe and under the same roof. A market might be afforded in this line to the American manufacturer who would properly introduce his goods and await the development of the trade, which would doubtless be slow at first.

COST OF MANUFACTURE.

The cost of production in France, as in England, is much less than in the United States. Production is figured, likewise, on a different basis. This information should prove of value to the American manufacturer in showing the competition of labor wage in this industry.

Wages and piece prices paid vary according to locality, cost of manufacture being greatest in Paris. The annexed table shows the staff required for a daily production of 300 pairs of Goodyear shoes in a Paris factory.

(1 franc=19.3 cents.)

Class of labor.	Surface, square meters	Employees.			Cost, per dozen pairs.	Wages, each.	Total.
		Men.	Women.	Youths.			
					Francs.	*Francs.*	*Francs.*
Gemming insoles			2		.35	4.375	8.75
Lasting, pulling over by hand	2.80	6			2.00	8.33	50.00
Operators on Consolidated		2			.75	9.735	18.75
Pulling out the nails, upper trimming, and pounding up		1			.30	7.50	7.50
Sewing in welts (Goodyear)	1.50	2			.60	7.50	15.00
Inseam trimming	1.00	1			.30	7.50	7.50
Welt beating	1.00			1	.12	3.00	3.00
Filling and shank fixing		2			.60	7.50	15.00
Cementing soles Laying soles	1.50	1			.30	7.50	7.50
Rough rounding and channeling soles	1.50	1			.30	7.50	7.50
Channel opening and shank skiving	2.00	1			.20	5.00	5.00
Sole stitching (rapid Goodyear)	1.50	2			.60	7.50	15.00
Channel laying and sole leveling	3.00	2			.50	6.25	12.50
Stitch separating	1.50		1		.20	5.00	5.00
Heel-seat trimming and finishing off shank edge where it meets heel breast	1.50	1			.25	6.25	6.25
Heel attaching	2.00	1			.30	7.50	7.50
Toppiece slugging and heel seat-nailing	3.00	1			.30	7.50	7.50
Heel trimming and breasting	2.00	1			.30	7.50	7.50
Heel scouring (sandpaper not included)	1.50		2		.30	3.75	7.50
Edge trimming	1.50	2			.60	7.50	15.00
Edge inking and setting	2.00	3			.90	7.50	22.50
Sole buffing	1.50		1		.20	5.00	5.00
Sole buffing on Naumkeag	1.50		1		.20	5.00	5.00
Finishing soles and heels	2.00		3		.60	5.00	15.00
Beading heel seats, etc	1.00			1	.15	3.75	3.75
Cleaning up and pulling out last		4			1.15	7.18	28.75
Treeing	4.50	3			.90	7.50	22.50
Total	41.30	37	10	2	13.27	175.12	331.75

Cost for 300 pairs of Goodyear shoes:

Number of hands		49
Total price	francs	331.75
Price per dozen pair	do	13.27
Price per pair	do	1.1058

AVERAGE PRICES AT PARIS.

The following table shows average prices paid to operators and workmen for the manufacture of Goodyear and Blake made shoes at Paris:

		Francs.
Rough stuff cutting	per day	7.00
Channeling Goodyear soles	do	6.00 to 7.00
Channeling Blake soles	do	6.00 to 7.00
Sole molding	do	6.00
Channel opening for Blake	do	6.00
Gemming insoles, includes lip turning and laying cloth	per 100 pairs	4.00
Cutting or clicking	per pair	.25
Upper fitting Upper stitching	do	.60
Counter skiving	per day	6.00
Box-toes skiving	do	6.00
Pulling over by hand	per pair	.20 to .25
Lasting on consolidated	per dozen	.84
Welt sewing on Goodyear machine (men)	do	.80
Welt sewing on Goodyear machine (women)	do	.90
Sole sewing on Blake machine	do	.25
Inseam trimming	do	.40
Welt hammering	do	.10
Pounding up by hand after lasting for Goodyear	per 100 pairs	4.00 to 5.00
Filling and fixing shank pieces	per dozen	1.00
Sole laying, Goodyear	do	.40

		Francs.
Blake sole laying, taper tacker	per dozen	0.25
Rounding and channeling on last	do	.50
Shank skiving on last	do	.15
Channel opening on last	do	.15
Sole stitching, Goodyear rapid (men)	do	.80
Sole stitching, Goodyear rapid (women)	do	.90
Sole sewing, Blake, all around forepart, including shank	do	.30
For shank only	do	.20
Channel laying	do	.20
Beating out and leveling soles	do	.50
Nailing heel seats	do	.10
Stitch separating, by machine	do	.20
Heel stamping	per 100 pairs	.75
Heel attaching	per dozen	.30
Toppiece, slugging by machine	do	.15
Heel trimming	do	.15
Heel breasting	do	.15
Edge trimming (randing out included)	do	.70
Heel scouring	do	.20
Inking and edge setting	do	.60, .70, .80, .90, 1.00, 1.10
Inking and finishing heels and seat wheeling	do	.20
Sole buffing	do	.25
Shank and sole buffing, by Naumkeag	do	.30
Sole and shank finishing, including laying colors	do	.70 to .80
Cleaning up and taking out last	do	1.00

Following is the cost price, at Paris, labor included, for lasting a pair of shoes (francs 13), with the consolidated lasting machine:

Blake sewn.

	Francs.
Operator on consolidated lasting machine	0.035
Pulling over (by hand)	.15
Filling in and pounding up	.08
Sole laying and pulling out last	.03
Furniture and preparation of material (tacks, steel strip, counter skiving, sole molding, channel opening)	.02
Total	.315

PRICES AT NANCY.

The average prices paid to operators and workmen for the manufacture of Goodyear and Blake make of shoes at Nancy are shown in the annexed table:

		Francs.
Rough-stuff cutting	per day	3.50 to 6.00
Channeling Goodyear soles	per dozen	About .05
Channeling Blake soles	do	.05
Sole molding	per day	3.00
Sole molding (piecework)	per dozen	.03 or .04
Channel opening for Blake (in some firms this work is done by the lasters, but in others it is paid)	per dozen	.02 to .04
Gemming insoles	do	.05 to .07
Cutting or clicking, pairs uppers	do	2.00
Cutting or clicking	per day	4.50 to 6.00
Upper fitting	per dozen	.50
Upper stitching	do	2.00 to 3.50
Counter skiving	do	.03
Box-toe skiving	do	.05
Pulling over by hand	per pair	.05 to .10
Lasting on consolidated machine	do	.05 to .07
Welt sewing on Goodyear machine	per day	5.00 to 6.50

		Francs.
Sole sewing on Blake machine, according to article and firm	per dozen	0.15 to 0.30
Inseam trimming	per day	3.00 to 3.50
Welt hammering	do	3.00 to 3.50
Pounding up by hand after lasting, for Goodyear	do	3.00 to 4.50
Filling and fixing shank pieces	per dozen	.60 to .75
Sole laying, Goodyear	per day	5.00 to 6.00
Blake sole laying by taper tacker, operator paying out of this amount the tack strip and taking out the lasts	per dozen	.03 to .07
Rounding and channeling on last	per day	5.00 to 6.00
Shank skiving on last	do	2.00 to 2.50
Channel opening on last	do	2.00 to 2.50
Sole stitching, Goodyear, rapid	do	5.50 to 6.00
Sole sewing, Blake, according to article and firm	per dozen	.15 to .30
Channel laying (included in the following operation):		
Beating out and leveling the soles	do	.25 to .50
Nailing heel seats	per day	3.00 to 3.50
Stitch separating by machine	do	3.00 to 3.50
Heel stamping	do	4.00 to 4.50
Heel attaching	do	4.00 to 4.50
Heel piecework	dozen pairs	. .12
Top piece slugging by machine	per day	3.00 to 4.00
Heel trimming	do	4.00 to 5.00
Heel breasting	do	4.00 to 5.00
Edge trimming	do	5.00 to 6.00
Heel scouring	do	3.00 to 3.50
Inking and edge setting (some firms pay per dozen 0.30)	do	4.50 to 5.00
Inking and finishing heels and seat wheeling	do	3.00 to 4.50
Sole buffing	do	2.00 to 3.50
Sole buffing, piecework, pairs	per dozen	.10
Shank and sole buffing by Naumkeag same as for sole buffing.		
Sole and shank finishing, including laying the colors	per day	2.50 to 4.50
Cleaning up and taking out the last according to the ability	do	2.00 to 3.50

PRICES AT LIMOGES.

Average prices paid to operators for the manufacture of Goodyear shoes at Limoges are given in the following table:

		Francs.
Pulling over	per 100 pairs	15.00
Operator on consolidated lasting machine:		
Ordinary work	do	5.00
Patent leather and horsehide	do	6.00
Pulling out nails, etc	do	.25
Welt sewing Goodyear	do	3.00
Inseam trimming	per dozen	.20
Filling in	per 100 pairs	5.00
Welt beating	do	.50
Putting on cement and sole laying	do	2.50
Tough rounding and channeling and shank skiving	do	2.80
Channel opening	do	.75
Heel-seat trimming	do	.75
Sole leveling on twin leveler	do	3.00
Plowing out heel seat before trimming	do	1.00
Heel trimming	per dozen	.25
Edge and shank trimming	do	.40
Heel scouring, sandpaper included	do	.20
Stitch separating	do	.25
Edge finishing:		
Men	do	1.00
Women	do	.75
Sole and top-piece buffing	per 100 pairs	2.50
Sole stitching Rapid Goodyear:		
Men	do	4.00
Women	do	3.50
Nailing heel seats	do	.75
Heel attaching	do	2.00
Slugging top pieces:		
Men	do	1.50
Women	do	1.00

GENERAL AVERAGE OF PRICES.

The following table shows the average prices paid throughout the Republic to operators and shoemakers for making Goodyear and Blake sewn boots and shoes:

		Francs.
Rough stuff cutting	per day	6.00
Channeling Goodyear soles	do	6.00
Channeling Blake soles	do	6.00
Sole molding	do	4.00
Channel opening for Blake	do	4.00
Gemming insoles, includes lip turning and laying cloth	per 100 pairs	4.00
Cutting or clicking	per pair	.25
Upper fitting and stitching	do	.60
Counter skiving	per day	5.00
Box-toes skiving	do	5.00
Pulling over by hand	per pair	.15
Lasting on consolidated—		
Welt	per 12 pairs	.75
Blake	do	.60
Welt sewing on Goodyear machine	per dozen	.75
Sole sewing on Blake machine	do	.25
Inseam trimming	do	.30
Welt hammering	do	.10
Pounding up by hand after lasting	per 100 pairs	4.00
Trimming and fixing shank pieces	per dozen	1.00
Sole-laying Goodyear	do	.30
Blake sole-laying taper tacker	do	.20
Rounding and channeling on last	do	.40
Shank skiving on last	do	.15
Channel opening on last	do	.15
Sole stitching Goodyear Rapid	do	.60
Sole sewing Blake, all around fore part, including shank	do	.30
Sewing shank only	do	.20
Channel laying	do	.20
Channel closing and leveling soles	do	.30
Nailing heel seats	do	.20
Stitch separating by machine	do	.20
Heel stamping	per 100 pairs	.60
Heel attaching	per doz	.25
Top piece slugging by machine	do	.15
Heel trimming	do	.15
Heel breating	do	.15
Edge trimming	do	.60
Heel scouring	do	.20
Inking and edge setting	do	.60
Inking and finishing heels and seat wheeling	do	.20
Sole buffing	do	.25
Shank buffing by Naumkeag	do	.15
Sole and shank finishing, including laying colors	per doz	.80 to .90
Cleaning up and taking out last	per doz	1.00

SWITZERLAND.

SATISFACTORY EXPORTS—AMERICAN MAKES IMITATED.

An agent of the Treasury Department reports as follows on the shoe industry of Switzerland:

According to the report of the Zurich Chamber of Commerce the difficulties of the shoemaking industry reached their climax in the year 1905. The factories were, it is true, fully occupied, but at prices which were quite out of proportion to the demands of the leather market and the costs of production. The raw material was scarce, the consumption large, and the price of leather forced up as it had

never been before. In consequence of these circumstances the position of the shoemaking industrial world had assumed so critical an aspect that, in spite of the want of unanimity among its members, an increase in the factory prices was agreed upon toward the end of 1905 and communicated simultaneously to all the shoemakers in the home trade. But the fear of foreign competition and the absence of mutual confidence impeded any decisive action.

EXPORTS AND IMPORTS.

The export factories were able to obtain a rise in the prices, the foreign competition having led the way. The export was satisfactory, more particularly so to the chief consumer, England; that to France also developed considerably. The East, especially Egypt, bought well; also the countries of South America, Chile, Peru, and Brazil. The South African consumption was, however, as bad as before. An interesting fact is the capture of the German market, notwithstanding that Germany is the principal exporter of shoes to Switzerland.

The import during the year 1905 amounts to $1,420,673 (7,361,000 francs) and for india-rubber shoes, $193,000 (1,000,000 francs). Of this, Germany supplied $987,967 (5,119,000 francs) and $189,140 (980,000 francs) worth of parts of shoes, such as uppers. The rest of the import is due to France with $212,300 (1,100,000 francs) and Austria with $104,220 (540,000 francs), while the United States, whose products are very much advertised, is only represented in the customs statistics to the amount of $25,550 (132,800 francs).

SUCCESSFUL IMITATIONS.

The Zurich Chamber of Commerce says expressly in its report: "As a matter of fact, the best Swiss factories produce 'American' shoes which, in form and workmanship, are equal to the American product, and which are mostly not dearer, and rather better than otherwise."

The American import can hardly be increased by advertising in Switzerland, as the public is in this respect not very accessible. A large wholesale store for the best qualities in Zurich or Basel, which could energetically work the retail trade, would obtain better results.

The total Swiss export amounted to $1,458,501 (7,557,000 francs), having increased by $155,172 (804,000 francs). On the other hand, the import has grown by $332,346 (1,722,000 francs), so that the trade balance of the item of shoes stands more unfavorably by $177,174 (918,000 francs) than in the previous year.

GREECE.

HOW AMERICAN SHOES WERE SHUT OUT OF MARKET.

Consul-General George Horton forwards from Athens the following note upon the shoe trade of Greece:

The question as to whether or not there is a demand for American shoes in Greece has been put to the test by a prominent firm here and answered in the affirmative. This firm imported 500 pairs of American shoes of assorted sizes about a year ago, and had no difficulty in selling them. They bade fair to prove popular, as the Greek-made shoes are painful and injurious to the feet and expensive—30 to 35 drachmas

a pair. The Greek shoemakers raised such an outcry that they succeeded in getting the duty increased from 8 francs gold an oke on men's shoes to 15 francs, and from 10 francs gold on women's shoes to 30. This duty, which is aimed at an American product, is prohibitive. The firm in question informs me that they have been obliged to send back 500 pairs that arrived at the custom-house after the new duty went into effect, which amounts to about 5.31 francs a pound for men's shoes and double that sum for women's. (1 oke=2.82 pounds; $1=5.50 drachmas.)

KID GLOVE INDUSTRY.

FRANCE.

FASHION'S DECREES—SCARCITY OF SKINS—ADVANCING PRICES.

Consul C. P. H. Nason, of Grenoble, furnishes an interesting report on the glove trade of his district, which is one of its principal industries. For the six months ended December 31, 1905, the value of these gloves shipped to the United States from Grenoble was $613,884. Mr. Nason writes:

This chief article of Grenoble's exports is having its period of "innings." By fashion's decree kid gloves are being sought for more than ever, displacing in a measure the thread and fabric gloves, and especially gloves of the longer pattern, those of 10, 12, 16, 18, 20, and 24 buttons. From all quarters the call has been and is continuing for the long gloves—black and white in color—black predominating.

In consequence there has been almost a panic in the markets for kid and lamb skins. Never has there been such a pressure to obtain skins. More and more the prices advanced until "fifty per cent higher" was the point reached, and which is likely to be maintained for a good while to come. Naturally the skin merchants have realized handsomely, and in many cases the retail dealers also, by reason of advanced selling over their buying prices. The manufacturers have felt it most disadvantageously, having to meet contracts made before the rise in the price of skins took place. The manufacturers who had large supplies of skins on hand were fortunate; others, and notably the smaller, were hard pushed and a few were seriously crippled.

With the demand continuing, the situation "tightens," and it is probable that prices will tend upward rather than downward. If it is asked why there should be such a stringency in the skin market, it may be said that the scarcity of leather in the world's markets which has augmented the price of all leathers, has increased in large measure the use of kid and lamb skins for various other purposes than that of gloves. Moreover, to make the long gloves there is required more than twice the number of skins needed for the shorter or ordinary gloves.

Naturally the glove trade has everywhere been quickened, and the glove establishments and the houses of thousands in and around Grenoble have been and will continue to be busy scenes, making it difficult in many cases to find "hands" and glove cutters enough.

SPAIN.

EXTENT OF IMPORTS AND EXPORTS.

Consul-General Ridgely, of Barcelona, states that about 3,000 persons are employed in the Spanish glove industry. The cost of cutting gloves varies between 50 cents and $2.90 per dozen, according to size and quality, while the cost of making up is 50 cents to $1.26 per dozen. Spanish-made gloves are being exported to Cuba, France, Argentina, England, and Turkey. The only gloves imported by Spain are made in London and Paris, and sold only by a few of the best Spanish outfitters. The duty is 20 pesetas ($3.86) per kilogram (2¼ pounds).

ITALY.

COST OF MANUFACTURING.

Consul J. E. Dunning, reporting from Milan, says that women and girls do most of the work on Italian gloves. The girls are paid from 20 to 40 cents per day and the women from 40 to 60 cents—relatively high wages in Europe. Men are employed to do the curing of the skins and the cutting, this last demanding exceedingly expert labor, the wages for which run as high as 8 francs ($1.53) per day. An expert Italian cutter turns over a little less than 3 dozen small or two-button gloves, or about 1 dozen long gloves. The men are few in number, and on account of the uncommonly high wage scale allowed them, are exceedingly independent. The Milan makers reckon the cost of preparing the gloves for market, after the cutting is paid for, as from $1.93 to $2.31 per dozen for short gloves and from $2.40 to $2.90 per dozen for long stock.

HIDES AND LEATHER.

INDIA.

CALCUTTA INCREASING THE EXPORT OF RAW MATERIAL.

According to Consul-General W. H. Michael, of Calcutta, the trade in hides and skins is one of the most important in India, and he gives the following particulars:

During the week ending October 1 two railroads running into Calcutta brought 1,027,830 pounds of hides and skins from interior points. This does not include the quantity of hides and skins shipped in by water transportation, which I have been unable to get. The following table shows the total exports of raw hides and raw skins during the last three fiscal years:

	1904.	1905.	1906.
	Pounds.	*Pounds.*	*Pounds.*
Hides	8,261,198	8,722,520	11,531,809
Skins	19,634,429	22,889,526	31,672,298

The value of the hide exports for 1905–6 was $14,445,980, and of skins $16,283,665. This represents 6.4 per cent of the entire exports of Indian produce, and Calcutta shipped 76.6 of all hides and skins

exported. The United States took about 43 per cent, or nearly half of the entire lot. Germany, Austria-Hungary, France, and Spain follow in the order named. The United States took mainly skins, which were shipped from Calcutta, and amounted to 266,598 hundredweight. The demand for raw skins in France and the United Kingdom has increased, the former taking 30,854 hundredweight this year as against 14,183 hundredweight in 1904–5, and the United Kingdom taking 27,456 hundredweight in 1905–6 as against 17,978 hundredweight in the previous year.

The movement of hides and skins since June 30 shows that the increase in exports of this commodity for the latter part of 1906 will be very considerable, and that the United States will increase her takings to the limit. [Dealers in and exporters of hides and skins at Calcutta are named by Mr. Michael, and their addresses may be secured from the Bureau of Manufactures.]

BRAZIL.

EXTENDING SHOEMAKING INDUSTRY CREATES GREATER MARKET.

Consul-General G. E. Anderson, of Rio de Janeiro, sees a better chance for the sale of American leather in Brazil. He writes:

Brazil manufactures considerable leather, but it also imports extensively, the record for 1904 being 1,451,056 pounds, valued at about $1,629,097. Of that France furnished a little over one-half, Germany about one-fifth, and the United States about one-twelfth. Of the imports about seven-twelfths came to Rio de Janeiro and about one-fifth to São Paulo by way of Santos. There was also imported sole leather to the extent of 16,579 pounds, valued at $7,292.

These leather imports are mostly for shoemaking, and there is a great change now in progress in the shoemaking industry of Brazil. The introduction of American shoemaking machinery has been in progress for some time. For the past few weeks there has been a strike of shoemakers in Rio de Janeiro, some 7,000 men being out. One of the most direct results of this strike has been the immediate introduction of American shoemaking machinery. This creates some demand for leathers suited to American style footwear and also a permanent market for American leather. The situation demands action on behalf of American leather interests. A similar change is also going on in São Paulo. The two ports take about three-fourths of the leather imports of the country. There should be an American leather representative in the field here, and in the meanwhile something may be done by corresponding with firms in Rio de Janeiro. [Names may be secured from the Bureau of Manufactures.] Correspondence should be in Portuguese if possible; otherwise English is as acceptable as any other language. American dealers should be prepared to grant liberal credit terms, arrangements generally being made for six months, with interest from date of invoice.

GERMANY.

SHORTAGE OF SKINS—HIGHER PRICES.

According to Der Ledermarkt, German manufacturers of leather are said to be short at least 500,000 domestic skins. From July 1, 1905, to June 30, 1906, the production of calfskins in Germany

amounted to 4,253,556 pieces, or 261,087 less than during the previous year. To this deficit are added the increased consumption caused by the addition in population and the increased demand for factory-made shoes, which causes more frequent purchases. Since the authoritative confirmation of these statistical figures, ending with June, the calfskin production has been still further reduced, as the fodder crops were favorable, which induced the farmers to raise cattle. Regarding hides for the same space of time, German figures show that 3,692,571 were taken off, or 154,728 more than for the previous year. This addition was not sufficient to cover the increased demand for hides, and the result was an advance in prices. Calfskins continue to advance in prices. Der Ledermarkt asserts that leather values are far too low, calculated on present raw-stock prices, and it asserts that higher leather quotations will only be natural.

GREAT BRITAIN.

IMPORTS FROM UNITED STATES.

The imports of American leather into the United Kingdom are still on the increase, amounting, during the first eight months of 1906, to $12,593,600 in a total import of $31,992,200. This is an increase in the imports of American leather of $2,936,300 as compared with the first eight months of 1905, and of $823,800 as compared with the first three months of 1904. The countries from which the imports of leather manufactures were imported during the three periods are not given in the official returns from which the leather statistics were taken.

FRANCE.

IMPORTATIONS AND VALUES.

Consul-General R. P. Skinner writes from Marseille as to the class and grade of leather most in demand in France. The following statistical table shows the leathers imported into France during 1905:

Article.	Quantities (pounds).	Values.
Prepared skins (only tanned or dressed):		
Goat, kid, sheep, and lamb	2,605,620	$1,298,504
Others, including smoothed skins	12,400,547	3,985,643
Curried:		
Calf, waxed or natural color	502,433	405,300
Calf, goat, etc., natural color, dyed or blacked	1,791,084	2,551,460
Cow and other large hides	1,453,286	597,528
Pig hides, squared for harness making	379,195	292,202
Sheepskins, for boot and shoe linings	3,527	1,158
Glazed skins	671,748	631,698
Prepared as chamois leathers, dyed or undyed, and dyed dressed skins	84,436	35,126
Not classified	184,526	140,118

The quantity and value of imported leathers in this country has undergone no very substantial change during the last four years. [Mr. Skinner sends a list of Marseille firms now importing leathers from the United States, or who are disposed to do so, which are filed for public reference at the Bureau of Manufactures].

TEXTILES.

COTTON HANDLING.

(See notice under "Contents," page 2.)

FAULTY AMERICAN BALING METHODS.

INEFFICIENT AND WASTEFUL METHODS PARTIALLY RESPONSIBLE FOR SCARCITY OF FREIGHT CARS.

Mr. H. W. Macalister, chairman of the Lancashire (England) Cotton Investigation Committee, who came to this country early in November to make further inquiry into methods of baling and transporting cotton, made a statement in relation to this general matter to the New York Journal of Commerce which will be especially interesting to those engaged in the cotton industry. Referring to the scarcity of freight cars to conduct the business of the country, Mr. Macalister said this scarcity was a very serious matter to the business interests generally as well as to the railroad companies. To the latter it was a matter of great concern by reason of the enormous capital that would have to be expended to supply the deficiency in cars, and it was of great concern to traders in cotton and grain because of the serious delays and losses which would be incurred, coupled with the general disorganization of their business.

Mr. Macalister is of the opinion that the only cure for the present serious condition of affairs is the initiation of a scheme to effect an improvement in the baling of cotton. The form of the bale of cotton as at present made is so irregular and its density so light that it occupies too much space. A standard freight car will under present conditions carry 25 planter's bales from the gin to the point of discharge at the compress, and after compression the same car will carry 50 bales to the shipping port. Mr. Macalister advocates the establishment of presses at the gins which are capable of baling cotton to a density of 35 pounds per cubic foot and of making the bale into such a form of standard dimensions as will enable a box freight car to carry 100 bales of cotton instead of as above stated.

The saving to the railway companies in capital expenditure, upon freight cars, in depreciation (renewal of plant), in cost of repairs, in shorter trains, in the reduction of cost in the matter of delays in having to unship cotton at compress points and to reship same, in the reduction in the number of "short-haul" trains and in an increase of "long hauls," in the number of locomotives used to move standard

lengths of trains—all these can only be calculated by men versed in railway management.

COTTON CROP BADLY TREATED.

Secondly, it is admitted generally that there is no crop in the country of such value which is treated so badly in the matter of exposure to weather as the cotton crop, and attention was drawn to this at the meeting of the cotton spinners and planters, which took place in Washington on May 1 and 2 last, when the members af the Southern Cotton Association and others expressed their intention to take measures to remedy the evil by building warehouses. If the question of saving of space is considered in the light of the comparative space occupied in a freight car above indicated the saving of cost in warehouse accommodation must be patent to all concerned.

Mr. Macalister also argued that the same conditions apply to the owners of steamships. A vessel whose present capacity is, say, 8,000 bales of cotton, would carry 12,000. These savings in the aggregate would amount to millions of dollars annually, and everyone connected with the trade, from the producer to the last consumer, would benefit by the change.

He is persuaded that very much better presses could be adopted at the gin at a very small extra cost over the present system. East Indian cotton is at present shipped to England in bales compressed to a density of 54 pounds per cubic foot. Egyptian cotton is compressed to 37 pounds per cubic foot on the average, while American cotton is only compressed to 23 to 23½ pounds per cubic foot. A very moderate density advocated by Mr. Macalister could therefore be adopted without any injury to the staple.

WORK OF BRITISH COTTON-GROWING ASSOCIATION.

Mr. Macalister explained that the charter of the association, however, only authorized that association to plant cotton in British colonies. This, therefore, would prevent the association planting cotton in the United States, however willing the association might be to do so. The whole object of the British Cotton Association is not the production of cotton but the education of the native people under British control, but at present growing cotton for the use of their families, to the fact that if they grow more than is necessary for themselves a market is open to them for the sale of their product, which in turn is a means of establishing new markets for the British manufacturer.

Notwithstanding the reports which have been circulated with regard to the purchase of cotton lands in quantities varying from 100 acres to many thousands of acres, Mr. Macalister said that nothing in this direction had as yet taken definite shape.

BRITISH TRADE.

DECREASED IMPORTS FROM UNITED STATES.

The imports of raw cotton into the United Kingdom from the United States during the first eight months of 1906 were $10,480,000 less than during the same months in 1905, but $7,953,100 more than during the same months in 1904. The following shows the imports into the United

Kingdom from all countries during the first eight months of those three years:

Country.	1904.	1905.	1906.
United States	$91,206,400	$109,635,900	$99,155,900
Egypt	34,236,200	33,995,300	35,057,300
Brazil	2,717,000	986,900	6,022,100
All others	1,794,900	1,330,200	1,795,900
Total	129,954,500	145,948,300	142,031,200
British possessions:			
British India	9,364,600	2,074,100	5,868,500
British Africa	33,200	75,600	248,700
British America	99,300	122,300	364,600
Other possessions	800	501,000	615,000
Total	9,497,900	2,773,000	7,096,800
Grand total	139,452,400	148,721,300	149,2 000

It will be seen that the decrease in American cottons was partly made up in imports from Brazil and Egypt, and that although there was an increase in the imports from British possessions in 1905, as compared with 1904, they fell short of the imports of the latter year, showing that cotton production in the colonies, as far as British imports are concerned, seems to be making no progress. Notwithstanding the decrease, American cotton constituted about 67 per cent of the total imports into the United Kingdom during the first eight months of 1906.

COTTON GROWING.

CALL FOR MORE MONEY TO CARRY ON GROWING EXPERIMENTS.

The second annual report of the British Cotton Growing Association recently issued expresses the opinion that $250,000 will be needed for 1907 for West Africa alone, and $500,000 in 1908. More capital is urgently needed, according to the report, which in part is as follows:

In the West Indies cotton growing is established on a sound commercial basis, and the production this year is estimated at $500,000 in value; in West Africa nearly 10,000 bales have been produced this season, and the industry in Lagos is already a commercial success. In East Africa appreciable quantities of excellent cotton are being produced. The production of cotton grown under the auspices of this association during 1906 is estimated at 20,000 bales, worth $1,300,000, whereas four years ago cotton growing as an exporting industry was almost nonexistent in the colonies where the association has achieved these results. The council is strongly of the opinion that a turning point has now been reached. If, however, the industry is to be made an absolute success it will require fostering for many years. Permanency can only be secured by the provision of ample capital. The council must confess to a feeling of some disappointment that the cotton trade has not more readily recognized in a practical way the necessity of supporting the work by subscribing the required capital. The question of raising the money is giving the council much trouble and anxiety.

LACE INDUSTRY.

MADEIRA.

COMPARATIVELY NEW INDUSTRY BECOMES VALUABLE.

Consul Maxwell Blake describes Madeira embroidery making, an industry though still young that already has developed an export trade of a quarter of a million dollars per year, one-third of which, he estimates, comes indirectly to the United States. Mr. Blake writes from Funchal:

Ornamental needlework has long been held in high estimation. Its history extends back four thousand years in India and even longer in China. It may almost be said to be the mother art of sculpture and painting. The East has been the place of its inspiration. The sedentary lives of the Orientals, their fantasy, patience, and minute industry have largely contributed to the peculiar development of this art among them. In western countries nunneries have almost invariably produced the finest specimens of needlework.

Madeira embroidery, however, is of most recent origin, having been first introduced in the year 1856 by a Miss Phelps, an Englishwoman whose practical philanthropy immediately gave occupation to a large class of women otherwise dependent upon almost every form of chance employment. It soon became so generally adopted by the women that now practically the entire female peasant population of the island depend upon it for their living, offering as it does convenient employment without conflict with their domestic pursuits. In the year 1880 it is said that only 10,000 women and girls were actively engaged in this industry, while to-day it may safely be approximated that no less than 50,000 are regularly employed at it.

The wage paid varies from 10 to 50 cents per day. Originally the work consisted chiefly of festoons, handkerchiefs, and entre-deux, but later doilies, table and umbrella covers, underwear, blouses, children's clothing, lingerie, hats, and finally, elaborately worked robes were attempted, the skill of the people always keeping pace with the fashions which regulate the export demand. In quality and execution the work is extremely artistic, requiring in its elaboration the greatest patience and care from the fineness of the stitch, which is delicately worked upon the edge of the thumb nail.

PATHETIC WORK OF CHILDREN.

It is a pathetic sight to see how the little children are encouraged in their struggling but playful efforts to imitate the dexterity of those about them, often succeeding so precociously that at the tender age of 8 years or earlier they frequently become little less adept than their elders, aiding forever afterwards toward the support of the invariably large family.

In design and pattern the work is singularly inferior to its execution. This is a characteristic readily observed among the Portuguese, for though they are marvelously skillful at imitation, this development seems to be at the expense of their creative faculty. In the actual form, however, of this work they need no education; in its beautiful composition they show the true gift of art. The body of the material

too is often negligently inferior to its beautiful but inharmonious ornamentation, a fault for which the Portuguese Government alone is responsible, discouraging as they do, by the really excessive duties, the importation of finer qualities.

The total amount of embroidery exported in 1905 was 50 tons, representing a value of about $250,000. A large part of this, perhaps one-third, finally reached the markets of the United States, although that sent direct through this consulate in 1905 was invoiced at only about $6,000. The German houses in this trade send practically their entire output to Germany, where it is invoiced and reexported, the Portuguese houses generally shipping direct from Madeira.

It is admitted that Americans are the best buyers of this work, and that the demand there seems to be continually increasing.

[Mr. Blake sends numerous photographs of Madeira embroidery work, which will be loaned to business men for inspection or reproduction.]

GERMANY.

EXTENT AND DEVELOPMENT OF THE INDUSTRY AT PLAUEN.

Consul C. B. Hurst, writing from Plauen, says that the cotton lace and embroidery industry there was not as prosperous in 1905 as in 1904.

The manufacture of the tulle varieties diminished considerably. They were made in all variations, from the cheap qualities in tambour and oriental laces to the finest Alençon and Brussels. The principal production was in medium grades, the designs of which resembled in part the finer qualities of net lace. Although the United States was a small purchaser, France and Great Britain bought largely of Alençon lace, which was produced partly on hand machines and showed great perfection in design and technical execution. Besides the Alençon laces, net laces in Brussels and point effects were sought after, as well as all kinds of fantasy laces in net, some with heavy flat-stitch effects, some in high relief with free lying leaf and flower effects, which in the superfine qualities were produced with realistic fidelity. During the second half of the year, Irish lace was brought out in considerable quantities. This lace produced in small figures was beautifully executed and achieved great success, and the output, for a time, exceeded the net laces.

EMBROIDERY LACES.

After net and guipure came muslin and batiste laces. Embroidery of lacelike character, produced from muslin and batiste, made up in entirely new effects, sold well. This kind of lace was subsequently made in such a manner that the parts not cut out were treated with a striking flat stitch. These laces, which in a certain measure constitute the boundary between embroidery and lace, were combined later in the year with Irish and Valenciennes effects. Productions of this character were made up in piece goods as well as in pleins. Collars in empire style, that earlier were in vogue, disappeared, and the demand changed to smaller collarettes made up in the popular laces.

Veils were among the lesser articles of lace embroidery produced, but were quickly taken up. The demand was strong enough to induce

several firms to make them a specialty. The veils were made up to 2 yards and 25 inches in length.

ADJUSTMENT OF WAGE SCALE.

The uses to which Plauen laces were put became diversified. Important quantities were used in the making of collars, jabots, and robes. On September 15 the union machine owners agreed to maintain a higher stitch-rate scale. Until that time they had operated more or less independently, with the result that the prices became so low that there was little or no profit. The stitch rate, which had been as low as 6 cents per 1,000 stitches for guipure lace and guipure with net, rose to 8½ cents for the same class of lace and much higher for the finer grades. This rate held only for work with double thread.

The manufacturers' and the machine owners' unions organized a movement for the suppression of incorrect stitch counting. This was an evil wherein the stitcher was the chief sufferer. Owing to the low rate of wages some had unscrupulously caused incorrect calculations of the number of stitches to be made on the patterns furnished to the operator. The consequence was that the stitcher did more work than he was paid for. There is now an office where lace work may be taken, the stitches counted, and any discrepancy made clear between the calculations and the number of stitches actually taken.

EXPORT OF EMBROIDERING MACHINES.

The machine-made lace industry in the United States is still in its infancy, but has shown undeniable signs of steady development. Under present conditions, the comparatively low wages paid to hands employed in this district, render competition possible only along certain lines, but lace-embroidery machines are exported from Plauen in increasing number each quarter. The great machine works situated here have an agent in the United States. In spite of the fact that there has been some opposition on the part of local lace manufacturers to the export of lace machines to a country which buys in such quantities the ready-made lace, there can of course be no hinderance to the shipment of looms for use elsewhere.

EMPLOYMENT AND PRODUCTION.

Silk laces were in strong demand, both in black and white. Considerable trade was done with the United States in this line, black becoming a favorite. Artificial silk was also used. It is estimated that there are in the lace and embroidery industry 7,000 shuttle machines, 3,000 hand machines, and 150 automatic machines in operation in the Plauen district; and the annual production of machine-made lace of all kinds is approximately $18,000,000.

The cost of production of lace curtains, roller shades, bonne-femmes, and sash curtains rose considerably during the second half of 1905. A number of new styles were introduced with effect, while the classic patterns in Empire and Louis XVI were also in demand.

While machine-made lace is the chief industry of the district, the old-fashioned handmade lace has not been altogether crowded out. Country schools have been established for training girls in making the finer kinds of lace, and instructions are given in designing. The

handmade lace in no wise interferes with the production of the machine-made article. This employment, taken up at intervals in the peasant homes of remote hamlets, gives work to many females. The handmade lace was formerly bought up by persons who went from house to house getting the pieces cheaply and selling them in cities at treble the original price. This method has been overcome by having a dealer connected with the schools take over all the lace made and exploit it on a mutual profitable basis. Art work of special designs table and bed linen for the finest drawn work in combination with insertion, are given for execution to the more skilled in the handicraft. The exportation of Plauen lace and embroidery to the United States in 1905 amounted to $4,243,915, about 95 per cent of which was made from cotton.

BELGIUM.

MODERN ARTICLES OF PRODUCTION.

Consul-General G. W. Roosevelt, of Brussels, reports that the slight depression that prevailed during 1904 in the Belgian lace trade partly disappeared in 1905. He writes:

The fashion has been more partial to laces of other countries, but Belgium can not complain, as the great rush for laces in 1902 brought back many former lace makers who had abandoned the work. Fashion seems to be more constant for laces and all similar articles, especially in the light and dainty in ladies' wear. The tendency to protect and develop woman's work in general will become more important in the future, as it has become fashionable to use lace in the greater professions, and even as dress for all public functions. During the recent exposition at Liege the Belgian Government opened competition for improving and restoring to its former importance the national industry of lace making.

No striking novelties were brought out in 1905, but the point gauze lace was in such demand that wages were considerably increased. Workmen remain scarce, as a great many of them are making the less difficult and intricate articles. There was a brisk demand for the Princess lace, which continues in high favor owing to its artistic finish. Venetian laces, together with Irish crochet lace, were brought into fashion by one of the leading dressmakers in Paris. The sudden demand for this kind of needlework kept the manufacturers fairly busy for part of the season. The duchess lace, partly enriched by the introduction of point-lace flowers and medallions, is always in favor, and will not go out of fashion as long as it is carefully manufactured.

The lighter classes such as applique and Lierre embroidered net laces were manufactured in large quantities. Mittens, veils, scarfs, and dresses had a fair demand. Embroidered veils were sold in enormous quantities. Some years ago the price of a single veil was 67½ cents, but an inartistic article was put on the market for 67½ cents per dozen, which ruined the trade in the good article. Neckwear made of braid had the same fate. Some good orders for fine Valenciennes were received. Torchon laces, used for linen trimming and underwear, had their regular line of sale. Numerous and very important orders were placed by American importers. Trade with

England has greatly declined. The exports of late from the Brussels district to the United States for 1905, amounted to $216,944, an increase of $33,039 over 1904.

SILK INDUSTRY.

FRANCE.

CAREFUL TRAINING FOR THE FACTORIES OF LYON.

Special Agent Arthur B. Butman furnishes the following report on the silk industry of Lyon and the methods of selling American products in France:

The ancient city of Lyon, capital of the Department of the Rhone, with a population of 500,000, is the third city of France and the second in industrial importance. The city is magnificently situated on the banks of the Rhone and Saône rivers, both navigable, and bordered by 6 miles of quays.

Lyon vies with Milan as claiming first importance in the world's silk industry. To its commercial school comes students from all countries to learn this valuable industry, about 300 of whom are usually enrolled in the silk department, where weaving of all kinds of silks and velvets, both by hand and steam, is taught. There is also a municipal silk school in Lyon which admits only the youth of the city. In this latter school no tuition fees are charged the students.

The greater portion of the finest qualities of silks and velvets are woven by hand, and the average wage paid for this work is about 3 francs (60 cents) per day for men, and 2 francs 50 centimes (50 cents) per day for women. A hand loom, worked by an efficient person, will produce about three meters (light stuffs) per day. Power looms will produce about three times this amount in the same time.

RAW MATERIAL—SILK EXPORTS.

The raw material for nearly all French manufactured silk passes through the condition house of Lyon, and it is said that about one-half the world's supply of silk passes through its warehouses. From Lyon to Marseille one would find few peasant houses where the manufacture, or some portion of the manufacture, of silk is not carried on. In parts of the Rhone district where sterility of the soil forbids other agriculture mulberry trees are grown and silkworms raised. The returns of the Lyon condition house for the year 1905 are as follows: Raw silk, 10,531,653 pounds; manufactured silk, 4,890,670 pounds, making a total of 15,422,323 pounds. The cocoon harvest for 1905 was 17,620,675 pounds and the number of silkworm raisers 123,761. The total silk production of Lyon for the year 1905 was valued at $75,408,000. Muslins represent nearly one-fourth of this production, their valuation being $18,240,000 for the year. The estimated output of muslins is 600,000 yards per day, and 30,000 power looms are employed in their manufacture.

The total exportation of all French silks for the year 1905 was 11,754,160 pounds, at a value of $58,288,128. The United Kingdom is the largest buyer, the amount of her silk imports from France for the year 1905 being $29,298,816. The United States silk imports

from France were second in amount, being $7,836,096 for the same period. The number of persons—men, women, and children—employed in the silk industry at Lyon is estimated as being about 40,000. Other important local industries are breweries, automobile manufactories, and a macaroni factory, said to be one of the largest in the world.

AMERICAN GOODS IN LYON.

Supplies of numerous American manufactured products are sold in Lyon through Paris agencies. This method obtains very largely, almost wholly, in other towns and cities throughout France, and is doubtless considered the most expeditious by the American manufacturer. The method does not appear to be, all things considered, the most advantageous for any parties concerned. Under the present régime all American manufactured articles must pass through the hands of two or three middlemen before reaching the consumer; accordingly, by the time the several individual profits have been reckoned with the article is too high in price to find a ready sale. I am told in Lyon that American machinery is desired and well liked, and that American tools are preferred to those of any other country, but the matter of price tends to restrict sales in this locality. It would seem that if an agency for American manufactures were established in the city, where goods could be seen and purchased direct, a large increase in business would follow.

Shoes of genuine American manufacture are on sale by one or two dealers; those purporting to be products of the United States and advertised as "American," "Forme Rooswelt," "Forme New York," etc., are doubtless of spurious make. In a city like Lyon, far removed from a great cosmopolitan center, I believe the only successful method for introducing shoes, or, indeed, the only successful method for introducing any American manufactured products, is the one previously stated.

A depot established for the exhibition and sale of American goods exclusively, managed preferably by an American, or at least by a native with no other interests, I am assured by those having an intimate knowledge of trade conditions in Lyon, would be well received in this city and prove profitable to all interested parties. The introduction of certain articles of American manufacture would doubtless prove slow at first, for Lyon is an ancient city and her people have inherited customs and prejudices of their forefathers which may not be quickly uprooted.

INDIA'S SILK CULTURE.

MOVEMENT TO EXTEND IN EASTERN BENGAL AND ASSAM.

From Calcutta Consul-General W. H. Michael reports that with the purpose in view of encouraging Indian farmers to engage more extensively in silk culture, and to spread the knowledge of correct methods in handling silk worms, the government of Eastern Bengal and Assam has remodeled the course of instruction at the Rajshahi Sericultural School. It is the desire to induce the sons of the silk farmers to attend the schools, and thereby become more proficient in silk culture than their fathers have been. The new rules at the school will come into force January 1.

ARTIFICIAL SILK.

LIMITATIONS OF THE WOVEN FABRIC.

Referring to his previous report concerning the manufacture of artificial silk in a Swedish factory to be built near Gottenborg, Consul R. S. S. Bergh quotes from an English letter received by him as follows: "Here in England the dresses made from artificial (wood pulp) silk have been discarded because the creases made when the wearers sit down do not come out. It is scarcely possible to distinguish the real from the artificial silk, but this defect has proved fatal for use as dress pieces. I believe it is used in a certain percentage as an adulterant mixture with real silk or for umbrellas or linings in coats, etc., but not on its own merits could it be used as a dress piece."

CUBAN HEMP TRADE.

GROWTH AND MANUFACTURE BOTH EXTENDING.

Consul Max J. Baehr, of Cienfuegos, treats on the hemp industry in Cuba. He writes:

Although there is in the island of Cuba considerable land planted in henequen (hemp) and three or four industrial plants with the necessary machinery to prepare the fiber for market, the output is yet limited and insufficient to furnish raw material for existing manufactories, these being compelled to use imported fiber, principally from Yucatan. The number of henequen plantations in Cuba, has been increasing and there is little doubt that in the near future the island will be able to produce from 3,000,000 to 4,000,000 pounds, which is the amount necessary to supply the home market. On the north coast of the island there are large tracts of high land of rocky formation, specially adapted for the cultivation of hemp, and persons who have studied the matter affirm that this industry would be very profitable if properly attended to. The leaf is said to contain 10 per cent more fiber than the plant that has been such a source of wealth to the Yucatan peninsula, and the quality of this fiber is about the same in Cuba. The production is, on the average, 68 pounds of fiber for every thousand leaves.

A large factory in Habana was established in 1890, the company in 1900 also purchasing a small factory in Regla. They have been doing business on a large scale. Last year they imported 3,500,000 pounds of Yucatan hemp and 2,000,000 pounds from Manila. At present they are cultivating hemp in two provinces of the island, and expect that within two years the Cuban production will reach 2,000,000 pounds and that at no distant date it will be sufficient for the consumption of the factory. Working night and day the factory makes 35,000 pounds of rope and bagging per diem and, with the exception of the tarred rope imported from Spain and Italy, the factories at Regla and Habana are furnishing 95 per cent of the rope consumed in Cuba, and they use all the fiber cultivated in Cuba, which in 1904 amounted to 550,000 pounds.

This factory is situated fronting the sea, thus facilitating the unloading on the wharf of the raw material and its transportation by means of a railway to the warehouses. The establishment contains all kinds of

machinery, with which is manufactured from the finest to the heaviest and strongest cables for ships and other purposes. It is provided with two steam engines and two dynamos, has a repair shop, boiler rooms, and warehouses, with sufficient capacity for 5,000 bales of heniquen.

It is generally believed that in five or six years the production of fiber will be more than sufficient for the national consumption and that a large amount will be exported.

GROWS SPONTANEOUSLY ON BARREN LAND.

Two species of henequen are known in Cuba, Agave americana and Agave cubensis, these plants yielding a hard, tough filament, applied mainly to the manufacture of rope and cordage. Both grow spontaneously and in the most barren lands, unfit for any other kind of cultivation, always provided the mineral composition of the soil abounds in lime and sand. The cost of cultivation, including the price of the young plants, can be calculated at about $836 per caballeria (33 acres) and the cost of cutting, preparing, and packing, $2,248, or a total of $3,084.

Information obtained on a large plantation of 25 caballerias shows that each caballeria will hold 50,000 plants. These after three years, the time when they attain their most perfect development, yield on an average three leaves monthly, and as it is calculated that each leaf contains one and a half ounces of fiber 1,000,000 leaves gathered from a caballeria during one year will yield 420 bales of 4 quintals (400 pounds each).

Surrounding the plantation referred to and where the leaves are gathered, cleaned, and the bales prepared there are many smaller plantations where the leaves are sold on the plant at the rate of 50 cents silver per thousand, the purchaser paying for cutting, gathering, and cartage. The leaves, collected in bunches of ten each, are paid for at the rate of $1 currency per thousand. The life of a plant is calculated at 15 years, but as each plant disappears it leaves an offshoot or young plant which at the end of three years will again commence to give the same yield for another fifteen years.

AUSTRIAN WEAVING CONTROVERSY.

HIGHER WAGES WILL NECESSITATE LABOR-SAVING MECHANISMS.

Consul U. J. Ledoux, of Prague, quotes a large textile manufacturer of Bohemia, who told him that the industry there had never enjoyed such prosperity as at this moment, but that it had, in common with other industries, to face a serious dilemma, the request of organized labor for greater pay and shorter hours. Mr. Ledoux continues:

The manufacturer acknowledged that during the past few years the prices of commodities have increased enormously, and that a general raise in salaries became an absolute necessity; but if there should be some corresponding increase in labor many Bohemian industries would be ruined. Comparing local conditions with those of America, whose industries he had closely studied, he stated that local labor was dearer than in America, and immediately illustrated it with his own experience. Upon his return from America he desired to put to profit his

studies of our methods. Having observed that if our weavers were enjoying large salaries they were giving a corresponding return in labor, receiving more than double the salary of local weavers but also giving more than double the labor, he offered to increase the salary of his workmen one-third providing they would run 3 instead of 2 looms as at present (American weavers run 4 and 6 such looms). Some accepted, and all was going well, and he thought of further improvements by the introduction of the Northrop looms, when labor organized and presented an agreement for his signature the first clause of which stated that "no weaver should run more than 2 looms." This he absolutely refused to do, and the result was that those of his workmen who were accepting the new conditions of greater work but larger salary had either to quit or leave town through persecution, and some went to America, where they are running 4 or 6 looms. This manufacturer continues to run his mill according to the old methods, but states that he is unable to compete with us in foreign markets and can but hold his own at home.

LABOR-SAVING MACHINERY MAY BE NECESSARY.

But the ruling high prices of commodities in Bohemia will soon necessitate increase in both salaries and work, closely followed by the introduction of labor-saving machinery. The better organization of labor and capital will surely assure the above compromise, and that at a quite early date. American manufacturers should then keep a close watch on local industrial development, not only on account of the effect they may have on prices in competing lines, but also for the possible markets they may offer. A preparatory campaign should certainly be begun now for the introduction of our labor-saving machinery. The writer will gladly furnish any list of industrial addresses required by our manufacturers, and also place their catalogues, price lists, etc., on file in the commercial intelligence department of the consulate.

The textile industries of Bohemia furnishes more than half the total textile production of the Austrian Empire. The number of looms in 1902 was about 70,000, against 120,000 for the whole of Austria, and increased threefold in the last twenty-five years. There were 1,750,000 spindles, against 3,054,000 for all Austria. Half of the cloth-printing machines are also located in Bohemia. There were in 1902 7,446 textile factories in Bohemia, against 21,837 factories in all Austria. The Bohemian factories employ 178,937 persons, against 337,514 for the whole of Austria. Most of the textile machinery is imported from Germany and England, very little being imported from the United States, although this country offers a splendid market for certain lines f labor-saving devices.

FLAX FOR BELFAST.

SCARCITY OF SUPPLY—AMERICAN FIBER WASTE.

Consul S. S. Knabenshue, of Belfast, reports that the linen industry of that district is very prosperous.

The manufacturers are oversold because of the increased demand, and prices are stiffening for linens as a natural consequence. One of the main factors in this condition is the uncertainty as to an increased supply of scutched flax, which is the raw material for the spinners.

The supply of Irish-grown flax for 1905 was but 22 per cent of the total amount required by the Irish spinning mills, which are practically all within the Belfast consular district. Of the remaining 78 per cent Russia supplied nearly three-fourths, the remainder coming from Belgium and other countries. But the troubled state of the Baltic provinces of Russia—the great flax-growing area of that country—has created apprehensions among Belfast flax spinners as to the stability of the supply therefrom; hence, great interest was created among the linen spinners of Belfast by the arrival of a consignment of scutched flax from India. The synthetic manufacture of indigotine, the coloring principle of indigo, is rapidly rendering the cultivation of the indigo plant unprofitable, and the company referred to above has been experimenting with flax culture for two or three years past to test the financial feasibility of exchanging the cultivation of unprofitable indigo for that of possibly profitable flax culture. In the present season the company has produced some 100 tons of scutched flax, of which the above-mentioned consignment is a large part.

IRISH OPINION.

This consignment of India-grown flax has been a matter of the highest interest to Belfast spinners. The secretary of the Belfast Flax Supply Association states that the strength of this Indian flax fiber is equal to that of Russian flax; that the consignment lacked proper treatment in retting or scutching, or both, so that portions of said consignment are thereby rendered unfit for spinning; but he justly observes that these are matters which can be remedied by better supervision and more thorough instruction of the employees, as the quality of the fiber is the real test of quality. In this connection, it is well to understand that, in the opinion of Belfast linen spinners, Irish-grown flax has the best fiber for the production of the finest grades of linens; that the Belgian comes next; the Russian is third, and after that all other flaxes. Furthermore, it may be said that the above business classification is only true of the great sources of supply. Outside of Irish, Belgian, and Russian scutched flax, the quality, as shown by sample, would determine the price. The three above-mentioned grades simply refer to the most prolific sources of supply.

These facts are of importance to American flax growers. In 1905 there were in the United States 2,534,830 acres of flax under cultivation, an increase of 271,271 acres over the previous year. Almost all the flax on this area was raised simply for the seed, which was used in the manufacture of linseed oil. The stalks, with all their possibilities of use as fiber material, were burned. With the imperative demand for additional sources of fiber supply, it would seem that this immense total of flax fiber destroyed, as noted above, should be made economically available.

LAPPER FOR TOW.

ECONOMICAL IMPROVEMENT IN IRISH TEXTILE MILLS.

Consul S. S. Knabenshue, in the following letter from Belfast, tells of a new preparatory process introduced in Irish textile mills in the manufacture of tow:

Tow is the short, broken fiber of flax, eliminated in the processes of scutching and hackling. It has a large use in the manufacture of

coarse linen goods, sacking, cordage, etc. As the flax manufacture in the United States is at present chiefly of the lower grades, it may be of interest to those engaged therein to learn of a new invention which applies the lapping principle to tow, by which, it is alleged, the labor cost is largely reduced.

By the present system the first process of tow manufacture is carding. Each carding machine has an attendant, who spreads the tow on the feeding sheet. The improvement consists in the introduction of a preparatory process by using a "lapping" machine to prepare the tow for carding. In this the tow is struck by a rapidly revolving toothed cylinder, the fragments of straw, etc., being separated, and the tow fiber then drawn between pressure rollers, from which it emerges in a broad sheet, which is wound mechanically on a wooden core until a roll is formed about 18 inches in diameter.

It is then "doffed" by hand without stopping the machine, lifted to an automatic carrier and thus taken to the carding room. Here one operator handles fifteen carding machines. No skilled labor is needed, as the only thing required is to keep the machines supplied with new laps. Cotton and wool are universally fed by laps to the cards; but as flax has much less cohesion of fiber this machine is claimed to be the first successful application of the lapping principle to short flax fiber.

One "lapper," as the new machine is called, with one operator, is declared equal to supplying the laps for 15 carding machines. Instead of one operator being required for each machine, it demands but one for the lapper and one for 15 carding machines. Hence there is a net saving of the wages of 13 operatives. This new lapper is in regular use in the Braidwater mills, Ballymena, county Antrim, which claim a saving of £17 ($82.73) per year on each carding machine. It is stated that the mill accounts show a saving on the 30 carding machines of $2,482 per annum. [Mr. Knabenshue forwards photographs of carding rooms before and after adoption of the new lapping machine. These will be loaned business men in order of application to the Bureau of Manufactures].

JAPANESE SKILL.

DEVELOPMENT IN LINEN WORK.

Consul-General H. B. Miller, of Yokohama, reports that one of the extensive new industrial developments in Japan is in linen and drawn work.

The linen is brought from Ireland and given out by contract in large quantities by piecework, and all designs of table linen, dress work, etc., are produced and exported to Europe and America. Silk waists, gowns, and dress goods are embroidered, the patterns being imported, some from the United States. The work is done in country districts, and men, women, boys, and girls are employed, their wages ranging from 10 to 40 cents a day. There has also grown up in recent years quite a business in the manufacture of linen collars and cuffs. The material is imported, worked into form, and reexported without having to pay any duty. The largest part of the embroidery, drawn work, cuffs, and collars goes to the United States.

TARIFFS.

RECENT CHANGES.

CANADA.

DOMINION'S NEW SCHEDULE NOW IN OPERATION.

Consul-General John G. Foster, of Ottawa, reports that on November 29, Mr. Fielding, finance minister for the Dominion of Canada, delivered the budget speech in the house of commons and presented the revised customs tariff which was put into effect at all Canadian customs ports from November 30.

The minister estimated that for the nine-month period which will end on March 31, 1907, the Dominion revenue will amount to $65,000,000, the ordinary expenditure to $52,000,000, and the capital and special expenditures to $12,500,000, leaving an estimated balance to the good of $500,000.

With reference to the new tariff he stated that the changes made were not radical in substance, but that different forms and classification for the tariff had been adopted; that the new general tariff would be found, upon the whole, to impose about the same rates of duty as the previous tariff. He expected also that it would prove to be about the same as a revenue-producing measure. The principle of a British preference is retained, but instead of being the fixed 33⅓ per cent of the former tariff it varies on different classes. Upon the whole, the minister thought the preference would prove slightly larger than formerly. This is decidedly the case in certain classes of heavy machinery. For British manufactures made from foreign raw material to be entitled to the preference at least 25 per cent of the value must be represented by British labor.

INTERNATIONAL AND INTERMEDIATE RATES.

The special new feature of the tariff is what the minister called an intermediate tariff, which is, roughly speaking, about 10 per cent under the general tariff. This intermediate tariff is not to go into operation immediately, but is to be used as the basis for negotiation with foreign countries and can be made operative by an order in council whenever satisfactory tariff concessions are obtained from other nations.

The surtax of one-third of the general tariff is continued against German goods, but the minister expressed the expectation that concessions would be made by the German Government which would enable Canada to discontinue this surtax in the near future.

The free list is somewhat lessened, and some classes of goods are free when imported from Great Britain though subject to a small duty when brought from other countries. The duty on agricultural products

is slightly increased and the general tariff on agricultural machinery is in most cases somewhat reduced. The duty on denatured alcohol is changed from $2.40 per gallon to 20 cents per gallon, but this low rate of duty applies only when the importation is made by the Government or by persons specially licensed therefor. Oranges, lemons, and rice (uncleaned) are placed upon the free list. The duty upon raw sugars is increased 12 cents per 100 pounds on the general tariff and 7 cents per 100 pounds on the preferential tariff. Gasoline is made free of duty.

IRON AND STEEL BOUNTIES.

Iron and steel bounties are extended and increased, so that for the calendar years 1907 and 1908 the bounty upon pig iron, made from Canadian ore, is to be $2.10 per ton. For the year 1908, $1.70 per ton, and for 1910, 90 cents per ton. On pig iron made from foreign ore the bounty for the years 1907 and 1908 is to be $1.10 per ton; for the year 1909, 70 cents per ton, and for 1910, 40 cents per ton. The bounty on steel is to be $1.65 per ton for the years 1907 and 1908; $1.05 for the year 1909, and 60 cents for the year 1910.

PREFERENTIAL FOR GREAT BRITAIN—EFFECT ON AMERICAN PRODUCTS.

The new Canadian tariff, which was presented in the House of Commons on November 29 and went into effect, pending action by Parliament, on the following day, differs from the old tariff mainly in that it provides three sets of rates—the general, intermediate, and preferential. The general rates correspond nearly to those of the old tariff which were applied to the products of countries not entitled to the preferential rates or to specified reductions secured by treaties, as in the case of France and Japan. The intermediate, which are somewhat below the general but considerably above the preferential rates, have not gone into effect as yet and probably will not figure as a factor in the commercial relations of the Dominion for some time to come. This is due to the fact that in the negotiation of commercial treaties Canada is to some extent dependent on the Imperial Government, and that the application of the intermediate rates will be influenced by the most-favored-nation obligations of the United Kingdom, contracted at a time when the Dominion was not taken into consideration. The preferential in favor of Great Britain and the British colonies, which in the old tariff amounted to one-third of the duties, has been modified somewhat and is, on the whole, more favorable to imports from the Empire.

While the surtax of one-third of the duties is retained for imports from Germany there is a disposition on both sides to settle the tariff controversy.

The free list has undergone very few changes as far as imports from the United States are concerned, not an unimportant consideration in view of the fact that nearly 50 per cent of our imports into Canada during the fiscal year 1906 were admitted free of duty.

APPLICATION TO AMERICAN PRODUCTS.

An important extension of the free list is to be found in the case of oranges, lemons, and limes, as shown in the annexed table, which gives comparative rates on some of our most important imports into

Canada as well as the value of the respective imports during the fiscal year 1906:

Articles.	Old rates.	British preferential.	Intermediate.	General.	Value of imports during fiscal year 1906.
Indian corn for purposes of distillation .....per bushel..	$0.07½	$0.07½	$0.07½	$0.07½	$721,608
Coal, bituminous, round and run of mine.per short ton..	$0.53	$0.35	$0.45	$0.53	8,316,150
Electric apparatus, n. e. s., insulators of all kinds, electric and galvanic batteries, telegraph and telephone instruments, motors, generators, dynamos, and sockets.....per cent ad valorem..	25	15	25	27½	3,349,298
Mowing machines, harvesters, self-binding or without binders, binding attachments, reapers...p. ct. ad val..	20	12½	17½	17½	(a)
Cultivators, plows, harrows, horserakes, seed drills, manure spreaders, weeders.....per cent ad valorem..	20	12½	17½	20	(a)
Printing presses, lithographic presses, folding machines, and machines for bookbinding...per cent ad valorem..	10	5	10	10	(a)
Sewing machines and parts thereof.....do....	30	20	27½	30	269,279
Automobiles .....do....	35	22½	30	35	459,687
Bar iron or steel, rolled, whether in coils, bundles, rods, or bars, comprising rounds, ovals, squares, and flats .....per ton..	$7.00	$2.25	$6.00	$7.00	1,004,270
Iron, pig .....do....	$2.50	$1.50	$2.25	$2.50	946,922
Oranges, lemons, and limes, in boxes not exceeding 2½ cubic feet.....per box..	$0.25	Free.	Free.	Free.	1,197,821
Meats, not otherwise specified.....per pound..	$0.02	$0.01½	$0.01½	$0.02	1,821,396
Boots and shoes .....per cent ad valorem..	25	17½	22½	25	1,214,353
Oils, coal and kerosene, distilled.....per gallon..	$0.02½	$0.01½	$0.02½	$0.02½	810,290

a Value of imports not given separately.

FRANCO-SWISS TREATY.

SILK INDUSTRY OF FRANCE OPPOSES ITS RATIFICATION.

Consul J. C. Covert makes the following report from Lyon on the status of the new commercial treaty negotiated between France and Switzerland:

Last June, upon the expiration of the Franco-Swiss commercial treaty, an active campaign was inaugurated in Lyon and the surrounding country in favor of higher protective duties on silk coming into France over the Swiss frontier. It was considered an especially Lyonese question. The pressure brought to bear upon the French Parliament was so great that a law was passed imposing heavy duties on almost all articles imported from Switzerland. While this law was under consideration in the Senate the diplomatic representatives of the two countries met in Berne and agreed to continue the existing commercial arrangement until a new treaty could be made. In the meantime the agitation for high protective duties was continued in France. At the request of the journeymen silk workers' union of Lyon the city council voted $1,000 for working up public sentiment in favor of a higher protective duty on silk.

Committees of workingmen went into the districts of France where cocoons are raised, where silk is thrown, twisted, reeled, woven, or where any branch of the silk business is carried on, and held meetings where they made speeches in support of higher duties on the product of their labor. The newspapers of Lyon published reports daily of the proceedings of these meetings, giving resolutions adopted in favor of higher protection. Processions of working men and women marched through the streets of Lyon bearing banners upon which were inscribed various mottoes asking for a high duty on silk goods. They

favored a duty of 65 cents per pound on pure silk and 35 cents on dyed silk. These figures were the basis of the contention of the workingmen and the employers, a number of the latter being present at nearly all the meetings and taking a leading part in the proceedings.

The treaty was signed on October 20, and published in the French newspapers November 5. It provides for a duty of 22 cents per pound on pure silk. It reduces the Swiss duty on French fruits, game, vegetables, poultry, butter, olive oil, preserves, wines, liquors, sparkling wines, clothing, furs, and a few articles de mode, and for parts of automobiles. In return for these tariff concessions France grants to Switzerland lower duties on milk, cheese, chocolate, watches and parts of watches, clocks and parts thereof, electrical appliances, tacks, "tresses" used in the making of hats, silk, and embroidered goods.

ADJUSTMENT OF DISPUTES—VIGOROUS OPPOSITION TO TREATY.

For the adjustment of all differences that may arise in the application of the treaty, arbitrators are provided for as follows: Each country shall appoint an arbitrator, and they will select a third person to decide questions upon which they can not agree. In case of a conflict in which the three can not agree, the two first appointed will appoint a person from some other country. If they can not agree upon an arbitrator, the appointment of one shall be determined by lot. The third person thus appointed will preside over the deliberations, and all differences will be determined by a majority vote. The country in which the arbitrators shall sit will be determined by lot. The treaty provided that it should go into effect on November 20, 1906, and continue in operation until one year after one of the contracting parties has given notice of an intention to annul it.

The French papers report that a vigorous opposition to the ratification of the treaty has commenced. A meeting was held at Paris on November 8 which was addressed by ex-Prime Minister Meline, ex-President Loubet, and many other prominent men against the ratification of the treaty by the Parliament. The speakers contended that the commercial treaties entered into between the different nations in Europe had almost isolated France from international commerce and opened her frontiers to ruinous competition. They expressed the opinion that higher duties generally are necessary to protect the interests of French industry. A committee of persons interested in the silk business is now in Paris to protest against the ratification of the new Franco-Swiss treaty, and a tariff war is expected.

RESULTANT REDUCTIONS FOR UNITED STATES.

By the terms of the commercial treaty recently concluded between France and Switzerland, a number of reductions have been made in the rates of the Swiss tariff, these reductions applying also to imports from the United States. The following are reductions of most interest to exporters from the United States. (The duties given are in francs (franc=$0.193) per 100 kilos.)

Dates, 15 to free; vegetables, except tomato sauce, preserved in vinegar or otherwise, in receptacles of all kinds weighing 5 kilos or less,

35 to 30; edible oils, other than olive oil, in receptacles of all kinds weighing more than 10 kilos, 2 to 1; olive oil in receptacles containing 10 liters or less and not weighing more than 10 kilos, 20 to 10; preserves of poultry, 10 to 6; fish, dried, salted, marinated, smoked, or otherwise prepared, in receptacles of all kinds weighing 3 kilos or less, 40 to 10; table butter, salted, 20 to 7; oleomargarine, suet, 12.50 to 10; roofing slates, 2 to 1.50; Roman cement, 1 to 0.80; pulverizers, winnowing, and sorting machines for grain and seeds; centrifugal skimming machines, cannons and mortars for hail dispersing, 7 to 4; accumulators and plates for accumulators, galvanic cells, and electric piles, mounted electrodes, combined with india rubber or celluloid, 15 to 10; beeswax, manufactured (bleached, co.ored, etc.), 8 to 6.50.

SWISS-SPANISH TREATY.

REDUCTIONS IN RATES THAT WILL AFFECT UNITED STATES EXPORTS.

By the recently concluded treaty between Switzerland and Spain, which went into effect November 20, reductions of duty have been secured by Switzerland on a considerable number of articles. All the reductions from the Spanish rates of duty secured by Switzerland apply also to imports from the United States. The following are the reductions of most interest to exporters from the United States, both the present minimum and the reduced rates secured by Switzerland being given. (The rates are given in pesetas (peseta=$0.193) and the unit, unless otherwise stated, is 100 kilos.)

Artificial slates in slabs for roofs, even if the cement contains an admixture of asbestos, 8 to 3; plastered surgical splints in soldered boxes, 20 to 6; insulating articles of mica or micanite for electrotechnical purposes, 70 to 25; insulating articles of asbestos for electrotechnical purposes, 45 to 25; gold jewelry, with or without pearls or stones, and precious stones, pearls, and pearl seeds, loose or unmounted, per hectogram, 25 to 15; pipe fittings of iron or steel, galvanized or not, 25 to 20; nails, hook nails, staples, and tacks, including French nails more than 1 mm. thick, with polished heads or with heads composed of other materials, 30 to 25; beds and other domestic furniture and utensils of iron or steel (except kitchen utensils and domestic utensils made of sheet metal), with parts composed of other metals or ornamented with other materials, 50 to 45; (medical and surgical furniture of cast-iron, wrought iron or steel, even combined with other materials or stuffed is dutiable under furniture, such as observation and operating chairs and tables, autopsy tables, surgical dressing and instrument tables, cupboards and show cases, sick beds, night tables and aseptic stools, toilet tables, gueridon tables, ambulance cars, litters and other apparatus of transport. supports of all kinds). Saws, rasps, or files, with or without handles, 50 to 40; kitchen utensils manufactured from sheet iron or steel, neither polished, tinned, galvanized, nor enameled, 45 to 20; the same, polished, enameled, or tinned, including those of tin plate, 80 to 30. (Reflectors for electric and gas lamps and lamp shades are dutiable under kitchen utensils.) Aluminium, in lumps or ingots, 15 to 8; in bars, sheets, tubes, or wire, 37.50 to 20; gelatine for industrial purposes, 52.50 to 25; gold watches, each, 15 to 1; watches of silver and other metals, even gilt or with parts of gold, each, 2 to 0.50;

dynamos, electro-motors, induction coils, resistance boxes, transformers with or without oil, governors, switch boards, and cut-outs and component parts of the same, weighing from 2,501 kilos to 5,000 kilos, 37.50 to 30; the same, weighing 5,001 kilos and upward, 37.50 to 20. Commutators, starting switches, porcelain insulators, mounted, fuse blocks, and other similar apparatus for the protection of electric apparatus are dutiable under the preceding numbers.) Apparatus for telegraphs and telephones, electric meters, and the like, including separate parts for the same, per kilo, 2.50 to 2; steam and gas engines, fixed, without boilers or flywheels, and separate parts for the same, weighing from 10,001 to 25,000 kilos, inclusive, 35 to 30; 25,001 kilos and upward, 35 to 20. (All steam turbines are dutiable under this number.) Cylindrical steam generators, including steam boilers not mentioned elsewhere, 18 to 15; boilers, multitubular, gasogenes, and separate parts for the same, 25 to 20; pumps of all kinds and separate parts for the same, except fly wheels, 30 to 25; hydraulic motors and separate parts for the same, 20 to 17; knitting and crocheting machines, weighing more than 70 kilos and separate parts for the same, 40 to 30; machinery, not made of copper, employed in textile industries, and separate parts for the same, 20 to 18.50; paper-manufacturing machines, ice-making machines, flour-mill machinery, machines for molding pottery and separate parts for the same, 22 to 18.50. (Those machines which receive the pulp and produce rolls or sheets of paper will be regarded as paper-manufacturing machines. Flour-mill machines will be regarded as machines employed in the mills for cleaning and grinding the grain as well as for bolting and grading the flour.) Prepared soups, without sugar, dry or liquid, per kilo, 1.50 to 0.50. ("Maggi" soups and the like, not sugared, are dutiable under prepared soups.) India rubber and the like manufactured into elastics for boots and shoes, braces, garters, and similar articles, 2.70; musical boxes of all kinds and sizes, and separate parts thereof, 1.50.

The principal reductions from the Swiss rates of duty (which apply also to imports from the United States) are as follows, in francs per 100 kilos:

Malaga raisins, in bunches, 20 to 3; Denia raisins, in bunches, 50 to 3; capers and olives, salted, in casks, 5 to 2. The concessions on olive oil and preserved fish are the same as those granted to France.

JAPAN.

CERTAIN GOODS EXEMPTED FROM DUTY.

An imperial ordnance is published in the Japan Weekly Mail specifying certain articles which are exempt from import duty if temporarily imported for the purpose of having work done to them.

One feature of these exemptions should aid American manufacturers of plain and white cotton goods. It includes "thread fabrics and manufactures thereof, imported for the purpose of refining, bleaching, dyeing, printing or stamping figures thereon." Another exemption covers "fabrics and manufactures thereof imported for the purpose of making drawn thread work, skein work, embroidery, or hemstitching thereon."

Exemptions are also made of the following temporary imports:

Manufactured articles imported for the purpose of engraving, making cloisonne, inlaying, plating, enameling, lacquering, or printing pictures or figures thereon. Porcelain and earthenware imported for the purpose of firing pictures or figures thereon. Fur and hides imported for the purpose of tanning or dyeing.

After the articles have undergone the particular process for which they were imported they must be exported through the open port at which they were imported accompanied by a certificate drawn up by the firm carrying out the work. This ordinance went into effect October 1.

MANCHURIA.

RATES ESTABLISHED IN JAPANESE LEASED TERRITORY.

An imperial ordinance published in the Japan Weekly Mail provides that import duties on articles produced in the leased territory in South Manchuria shall be levied in accordance with the Japanese "conventional" tariff, except in cases where the rates specified in the customs tariff law are lower than those leviable under the "conventional" tariff. This ordinance went into effect October 1.

SOUTH AFRICA.

REGULATION FOR ADMISSION OF CANNED GOODS.

Consul-General Julius G. Lay, of Cape Town, under date of October 3, furnishes a notice issued by A. H. Wilshere, controller of customs, in regard to levying duties on food products imported into South Africa. The order is of special interest to manufacturers of canned goods and reads as follows:

In connection with Customs Notice No. 1073, of the 25th of August last, stating that duty would be levied on milk and other articles of reputed weight at such reputed weight unless the actual net weight is stamped in the tin and conspicuously and indelibly printed on the label, it is hereby notified for general information that the parties to the union have agreed that until the 1st of January next the stamping of the net weight in the tin will not be insisted upon, but there must be a statement on the label showing the actual net weight of the contents in a conspicuous and clear manner and placed on that part of the label which is usually presented to the public.

After the 1st of January (1907) both the stamping of the tin and marking of the label will be insisted upon.

NEW CALEDONIA.

FREE ADMISSION OF OMNIBUSES.

The French Journal Officiel contains a Presidential decree providing that omnibuses intended for public passenger transport are to be exempt from customs duty on importation into New Caledonia.

TRANSPORTATION.

NAVIGATION MOVEMENTS.

UNITED STATES BOTTOMS ARE NEEDED.

VESSELS FLYING STARS AND STRIPES NEVER SEEN IN INDIA'S PORTS.

Consul-General William H. Michael writes as follows from Calcutta on the timely and interesting subject of American shipping interests:

In conversation with an American who has been representing American firms of the United States as a commercial agent for the last eight years, and whose travels have been through Japan and China, the Straits Settlements, and India, in answer to my question as to what one thing would, in his judgment, place American manufacturers on an equal footing with their foreign competitors in the competition for trade in India and the East, he said, "American bottoms." He added that until the United States owned its own ships and established direct communication with India and the Far East American foreign trade would be handicapped so far as this part of the world is concerned. He assigned this as the explanation of the slow growth of American trade in India and China. I fully agree with him so far as India is concerned.

INEXPLICABLE ABSENCE OF AMERICAN SHIPS.

In a recent conversation with an active business man of England, in discussing foreign trade with India, he said he was unable to understand why the American nation, so progressive and quick to perceive commercial advantages, had neglected for so many years sending its own ships direct to India. He said that America could compete on every line of goods imported into India if the country only had its own ships. Not a single American ship has been in any Indian port during the eight months I have been here and, so far as I can learn, not one has been in any Indian port for years. The English flag floats from the masts of a large majority of the ships that are to be seen in Indian ports. The result is that the United Kingdom does 90 per cent or more of the foreign business with India. It will continue to be this way until the United States establishes a direct line of ships between New York, Boston, Philadelphia, and India.

Even Belgium has her own ships in sufficient number to control a large business with India. That country's exports to India have steadily increased for several years, amounting last year to 168,378 tons, valued at $7,010,400. This is a large increase over Belgium's exports to India of 1904, and consisted mainly of iron and steel, cement, window glass, bitumen and resin, wool, and other articles. Surely if a small country like Belgium can increase exports to India by reason of having the ships and direct communication, a great nation like that of the United States ought to be able to do the same

thing. It seems ridiculous that the United States should ship the manufactures of the country to England and reship from there to India. Now and then an English ship loads with American manufactures at American ports and comes direct to India and takes Indian products direct from India to New York and Boston, and sometimes to Philadelphia, but the uncertainty of direct shipments by English vessels is such that it makes this sort of communication of little value to American trade with India. What is wanted is direct and certain communication. With this established, American manufacturers would have no difficulty in getting Indian trade and holding it.

NEW LINE TO SPAIN.

TAKES PLACE OF CEBALLOS STEAMERS—SAILINGS FROM SOUTH.

A report from Consul-General B. H. Ridgely says it is stated in Barcelona that owing to the recent failure of J. M. Ceballos & Co., of New York, the line of steamers operated by that company, with monthly sailings between New York and Barcelona, will be discontinued.

With this statement comes the additional announcement, which will be of great interest to American shippers, that the Gans Steamship Company, with head freight offices at 10 and 12 Broadway, New York, has established a line with regular sailings from New York to Cadiz and Barcelona. The first sailing occurred on November 26, when the steamship *Avona* sailed from New York for Cadiz, followed the next day by the steamship *Egremont Castle* for Barcelona. The steamship *Santander* also started on December 4, via Rotterdam, for Santander, an important city and well-known seaport on the north coast of Spain, where merchandise can be delivered for Bilbao, Valladolid, and other important industrial and agricultural centers.

The need of a line to northern Spain has long been felt, and it is hoped that considerable direct exportation of merchandise from the United States to that part of Spain will result. Nor is there any reason why ships bringing this merchandise should fail to find a certain amount of cargo for the return voyage. The Gans Company also advertise regular sailings from Norfolk, Savannah, and New Orleans to various European ports.

EUROPE TO MANILA.

NEW LINE STARTED FROM GLASGOW AND LIVERPOOL.

Vice Consul-General G. E. Chamberlin forwards the following report from the Singapore Free Press:

The Ocean Steamship Company, better known as the Blue Funnel Line, has started a new service to Manila. These steamers run between Glasgow, Liverpool, and the Orient, and formerly had to tranship their cargo at Singapore or Hongkong. The first steamer to make the run will be the *Teucer*, the largest freighter that has ever passed through the Suez Canal. She is a new vessel, built especially for carrying cargo, and is modern in every respect. Her net tonnage is 9,017, and she will carry 20,000 tons of cargo. The Ocean Steamship Company was consolidated with the China Mutual Steamship Company about two years ago, which company also owns a number of large freighters. The *Teucer* was due at Manila on November 20.

ODESSA TO NEW YORK.

NEW STEAMER SERVICE INAUGURATED VIA PIRÆUS.

Consul-General George Horton writes from Athens as follows:

A new transportation company, "The Russian Steamship Company," has put on a ship of 12,000 tons burden, the *Merk*, which will start from Odessa, touching at Constantinople and Piræus, from which latter port it will proceed directly to New York, making this latter part of the voyage, it is claimed, in fourteen days. Its chief business will be cargo and emigrants, and a special feature will be a chapel for members of the Orthodox Christian Church. The first sailing was announced for November 3, from Piræus.

AUSTRIA'S MERCHANT MARINE.

EXTENT OF DUAL MONARCHY'S TRADING FLEET.

Consul George M. Hotschick, reporting on the trade of Trieste, the center of his consular district, calls attention to shipbuilding and to Austria's merchant marine. According to the consul, the former was far from active. He writes:

Shipbuilding was somewhat less active than usual during the year 1905. The Austrian Lloyd launched two steamers, with a total tonnage of 11,551 and a total horsepower of 6,600. Both were built for the Austrian merchant marine.

The Stabilimento Tecnico turned out for the Austrian navy 1 battle ship of 10,630 tons and 16,000 horsepower, and 5 torpedo-boat destroyers, with a total of 6,000horse power; also 13 torpedo boats of 3,000 horsepower. Besides these ships, the Stabilimento Tecnico launched 2 small passenger steamers of 225 and 400 tons and 500 and 750 horsepower, respectively.

Statistics for the year show that in 1905 the merchant marine of Austria consisted of 13,908 registered vessels, with a total tonnage of 327,659, manned by 37,138 men. Fishing boats, lighters, etc., are also included in this number. This is an increase over the year 1904 of 354 vessels, 13,526 tons, and 766 men.

OCEAN FREIGHTS.

SHIPPING VIA ISTHMUS OF PANAMA.

BETTER PACKING NEEDED FOR WEST COAST OF SOUTH AMERICA.

Consul-General Samuel M. Taylor finds it necessary to emphasize that American manufacturers and exporters should be more careful in packing their goods intended for the west coast trade of South America. He writes from Callao, Peru:

Anyone who has watched the process of loading and unloading ships at the various coast stations, particularly from Panama down, must be impressed with the seriousness of the packing question. Goods shipped from the States for South American ports on the Pacific by Panama pass through the following stages of transfer before arriving at their destination: If started inland to some seaport in the United States,

the first movement is from the warehouse or factory to the railroad. The handling in this instance is not a severe test, and for that reason is apt to be misleading. The transfer from the cars to the wharf may be direct if the cars happen to be run on the wharf, in which case the process of unloading is comparatively easy. If, however, cartage is required from the railroad, the handlers frequently use gravitation methods.

MANY ROUGH TRANSFERS.

Ordinary packing, up to this point, might hold intact, but it is poor preparation for what follows. The cases or bags are put into the ship's hold by means of rope and derrick. A number of cases of various sizes are bound round by the rope, which tightens its grip on them by means of a slipknot. The squeezing strain as the lot is lifted by the derrick tells heaviest on the weakest, usually the smaller, packages, tending either to crush or spring the lids. As the lot swings to the hatchway, it often passes far beyond, and on returning is lowered and strikes the opposite side of the hatch with great force. When it is lowered to a stop, the rope is loosed and removed, and the cases on top are permitted to tumble off each other at will. At this the breaking commences.

The unloading at Colon from the ship is by the same method, and I saw box after box drop their contents on the floor of the wharf. The smaller packages, containing soaps, tinned goods, and the like, seemed to suffer most. Box cars are standing near by to convey the goods to Panama City, where from the cars they are trucked to the ship's side and again loaded by means of rope and derrick.

GREAT STRAIN ON BOXES.

If they are intended for points between Panama and Callao, or between Callao and Valparaiso, a double process of unloading is required, for the ships do not put in alongside the wharf at all. On the contrary, they are anchored a mile or more out, in none too smooth waters, and large barges are brought alongside to receive the cargo by means of the rope and derrick, but with this difference, that the distance down to the barge is considerably greater than to the wharf. Freight handlers below Panama seem to regard the contents of broken cases as legitimate spoils. The crews of the vessels, also, are said to have a weakness for appropriating the exposed contents of damaged cases. It is apparent, then, that no great tenderness will be exercised by this class of people in handling cargo. Certain it is that of the cargo I saw shifted there was an incredible amount of breakage.

But there are other evil effects. At one of these way ports, I was told, a planter had ordered an agricultural machine of American make. It came in a damaged case, with one piece lost. He does not know what the piece is, and without it the machine is useless. Not being able to give the makers an idea of it, there seems no remedy. He is a native, not a machinist. He has paid, lost his money, and is disgusted. In all probability there will be no more of those machines ordered in that part of the country. In this case if some directions printed in Spanish had accompanied the machine it would have been a valuable asset.

A prominent American firm, manufacturing a well-known machine, shipped to one of these way ports on a single order. The packing

was all right, but on the box, in English, were directions something like these: "Open from this side," "Don't drive a chisel in here," "Top," and so on. The natives had no idea of the meaning of those words, and so took no chances. Finally, the one Englishman in the place was consulted and the mystery explained. But this is not business; and instances like these multiply to stunt the much-hoped-for growth of United States commerce in South America.

Let it be kept always in mind that this is a Spanish-speaking country, and the safe plan is to assume that no one speaks English. The advertisements, circulars, pamphlets, booklets, etc., that are prepared in English and sent here at great expense are so much rubbish.

SHIPPING TO URUGUAY.

AMERICAN DERELICTIONS CAUSE ANNOYANCE AND TROUBLE.

Consul John W. O'Hara, of Montevideo, submits complaints recently made by importers of American goods there of the careless invoicing of goods and marking of cases. He writes:

It is contended that merchandise imported from the United States is not so classified as to meet the requirements of the Uruguayan custom-house authorities, and that this failure causes serious delays and frequently subjects the innocent importer to fines and expenses. The rules of the customs authorities require that the contents of all cases and boxes be particularly described. This is an easy matter in the shipping of one class of goods, but if the consignment consists of American novelties, so called, which are very popular in Uruguay, then more care is necessary in detailing contents.

Before the importer can secure a case, box, or bale of merchandise from the custom-house it is necessary to present a declaration in writing, giving the weights, gross and net, together with a detailed statement of the contents. This detailed statement should be so specific that each item may be identified on examination. If on inspection the declaration is found to be wrong and the amount of goods greater than declared, the person making the declaration is fined in any sum not exceeding $25, with $5 costs, for false declaration. Should the amount declared be greater than the amount contained in the case, the importer is compelled to pay duty on the amount declared, as a penalty for not knowing. In addition, unless the cases are numbered and minutely invoiced in detail, each box or case must be opened, examined, and weighed at the importer's expense, and at such time as the authorities may see fit to perform the work.

Montevideo is well provided with storage warehouses where importers are permitted to store goods free of charge for not more than one year. This is a very great advantage to importers who are not especially provided with storage barracas or warehouses. These storage houses are also often used to save the trouble and expense of extra handling when goods are entered for sale in upriver districts or in the interior, where they may be reshipped without repacking.

EUROPEAN CARE FOR DETAILS.

I have recently examined two invoices for goods shipped into this country, one European and the other American. Each invoice covered about the same number of cases, although of very different classes of

goods. The European invoice covered some 18 cases of assorted sweets. On the box or case the number, address, and correct weight were given. The invoice was detailed something like the following:

No. 1. One case, tin lined; dimensions, 101½ by 66 by 66 centimeters; glass; gross weight, 194 kilos; net weight (sweets and containers), 156 kilos; net (or weight of sweets only), 126 kilos.

Detailed as follows:

	Kilos.
12 dozen glass jars, ½ kilo each, hard mixed	36
12 dozen glass jars, ½ kilo each, fruit flavors	36
12 dozen glass jars, ½ kilo each, mint	36
6 dozen glass jars, ½ kilo each, lemon drops	18
	126

Each of the other 17 cases was marked and invoiced in as great detail as the one instanced, so that the merchant would be able to make a specific declaration as to the weight, dimensions, and contents of any particular case that he might wish to take out. He knew the number of kilos of glass and other containers and the exact net weight of the goods without the containers. He was saved the trouble and expense of having his entire 18 cases unpacked, weighed, and examined in detail. In such cases, perhaps, one or two are unpacked, weighed, and examined, and, if found to correspond with the statement of the invoice, they are all passed without further trouble or expense. Should the importer have an opportunity to sell any part of the invoice in any point outside of this country he is not required to pay the customs duties, and he knows exactly where to get the goods needed.

FAULTY AMERICAN STYLE.

The American invoice was for lamps and lamp attachments, globes, flues, burners, shades, and pumps (for a particular kind of lamp). About the only specification given was on the case, the number, address, and weight (approximate), gross and net. One item of 500 shades charged in the bill is not given in the invoice, and no clew is given as to where they may be found. How this invoice is detailed may be better explained by giving a translation of the declaration of the importer made for a portion of these goods and presented to the customs authorities:

DEAR SIRS: Please dispatch from New York seven remaining casks containing lamp chimneys. We are unaware of the contents of each package, as they come without specification in the invoice and the net weights vary—75, 90, 91, 78, 72, 96 pounds. We expect to receive some 200 chimneys in all, the balance of the invoice. Please look over cases 55, 58, 61, 62, 63, 64, 65, 67, 68 also, to ascertain the contents and proceed with the dispatching of same, the invoice being so deficient that we have not the slightest idea of the distribution of the articles.

This importer informs me that he has already been compelled to pay, in fine and costs, the sum of $30 for false declaration in relation to this same invoice. He is also compelled to have each case examined and to pay the expense for same, and in addition he must pay the customs duties on goods that are to be sold outside of this country, as well as those which are entered for sale here. This same complaint comes from other importers of American novelties in this city, and it appears to me that there is no legitimate excuse for such omissions. These acts of carelessness greatly prejudice foreigners against the use of American goods, and especially is this true when the goods are of a

class which requires particular invoicing. A little more attention to details, so as to meet the demands of customs officials and rules and regulations in foreign countries, would have a tendency to stimulate the already friendly feeling toward our merchandise.

SHIPPING TO JAPAN.

LOSS BY AMERICAN FIRM THROUGH BAD PACKING.

Vice Consul-General E. G. Babbitt reports that at the request of a firm doing an important business in Yokohama he appointed a surveyor to examine a shipment of underwear received from the United States, and the report rendered shows a carelessness or indifference on the part of the shippers not calculated to secure to them any future orders from that Japanese port.

The order called for 100 dozen shirts and 50 dozen drawers, of size 36 inches, quality and shade to be the same as specified in a previous invoice, to be packed in black cardboard boxes, which were to be placed in tin-lined cases. The findings of the surveyor are quoted in part:

I found the goods very carelessly packed in insecure cases, without tin linings The cardboard boxes, too, in which they were placed, were of irregular colors, shabby and worn, having the appearance of being used for previous packing purposes. The sizes varied from 32 to 44 inches, and the quality, shade, and finish of the goods were in every way different from and inferior to those sent on previous invoice. In fact, with the exception of the size of 36 inches represented in 15½ dozen shirts and 9 dozen drawers, the entire invoice in no way represented the requirements specified in the order referred to, and I am therefore of the opinion that, taking the lot as a whole, the dealer or buyer should be allowed 20 per cent discount on the price of the shirts and drawers measuring 36 inches, and also an allowance of 30 per cent should be made on the balance of the goods inspected, not only on account of the inferior quality but also for the difference in sizes. I would also mention that in one case I found 7 cardboard boxes empty, and a shortage of 6 dozen shirts and 4½ dozen drawers [which the steamship company had settled for].

Mr. Babbitt sums up: Japanese merchants are as particular as any other in regard to receiving what they order, and attention should be given to the details of packing specified in orders. Cases are easily broken on a journey from the Eastern States to Japan, and the tin lining would no doubt have saved loss of goods in this instance. Such shipments lead the buyer to seek markets where their orders and instructions as to shipping will be carefully attended to.

SHIPPING TRUST ORDERS.

COMBINATION EVADES RESPONSIBILITY FOR SOUTH AMERICA.

A cable dispatch from Liverpool states that the steamship lines forming the "conference" or syndicate for the west coast of South America, five in number, and the Gulf Line, have given notice of a new clause in bills of lading from the United Kingdom and Continental ports. It provides that cargoes will be received on the express condition that in the event of its not being able to be discharged at port of destination, whether through the custom-house not being able to receive it through heavy seas, congestion of port, lack of launches, or other elements of discharge, or for any cause whatsoever which the company can not remedy, the merchandise shall be either transshipped to hulks or other vessels in that port, or retained on board until return of steamer to the port of destination. Alternatively the cargo may

be transshipped or discharged at any other port the captain or owners' agents may think convenient, or be shipped in any other vessel at the risk and on the responsibility of the owner and consignees of the goods for return to port of destination. In any of these cases the owner or consignees must pay the extra freight and charges thus incurred before delivery of the goods.

WATERWAYS IN GERMANY.

RESPONSIBILITY FOR RIVER AND HARBOR IMPROVEMENTS.

Consul Jay White, of Hanover, writes from official data as follows concerning harbor and river improvements in Germany:

The improvement of navigable rivers and the construction, maintenance, and improvement of harbors are carried out by the States interested. The Empire only takes care of naval stations. Private corporations or individuals are permitted to undertake such work solely for their own use and under the supervision of the several States. The costs for the construction, maintenance, and improvement of harbors are defrayed by the States concerned, the Empire giving a proportional contribution if any conditions of national importance are fulfilled. This, however, is seldom the case. If the construction of a harbor is of especial interest to an individual city that city pays a proportionate amount toward the costs. The few cities that are the actual possessors of a harbor are liable for all the costs, though the State may, if it see fit, make a contribution. These proportionate contributions rarely occur, and up to the present time there has been no fixed scale according to which they have been arranged. Each case is decided separately and in the negotiation the community concerned is qute independent of the State.

The quays and storage room, etc., belonging to the harbor are for the most part let in lots to individuals or corporations. There are a few public quays and the charge for their use is in accordance with the tonnage of the vessel and the time taken. It is to these fees that the State authorities look for a return for the money expended, but to prevent trade being seriously affected the amount of the fees is in many cases merely nominal.

TOLLS ON CANALS.

A regular fee is charged for the use of canals and canalized rivers, but none for rivers that have been made navigable or improved. Such fees are collected by local authorities and transmitted to the State or city funds. All the more important improvements have to be sanctioned by the parliamentary committee. Works executed by the individual States are carried out by contract, which is considered the more economical method. The contractors have to furnish a large bond and pay a high penalty if the work is not completed in the specified period. The contractors have no appeal to the ordinary law courts, but disputes are settled by a special board of official engineers. States and communities that build the harbors also, as a rule, build the necessary docks, quays, stores, and machinery required for them. Some large corporations or firms that have hired space construct their own works.

The approaches from the sea to the greater towns on the seaboard have a minimum depth of 19.68 feet to 29.52 feet. The outer harbors have a minimum depth of 36.08 feet.

River.	Length navigable.	Mean depth.	Mean width.
	Miles.	*Feet.*	*Feet.*
Rhine	447	9.84	1,968
Weser	279	2.62	590
Elbe	509	3.28	1,279
Oder	385	2.95	656
Weichsel	155	8.20	3,280

The Rhine, Elbe, and Weichsel are navigable before entering Germany, the Weichsel to the extent of 434 miles. Compared with the mileage of the rivers the canals are unimportant, their total length reaching 248 miles. Their depths correspond with the minimum depth of the rivers. As an argument in favor of the further construction on inland waterways in Germany it is claimed that in England and America the itein of freight is only from 7 to 10 per cent, while in Germany it is from 28 to 30 per cent. It is also stated that the railways will not be able in the future to accommodate the increased traffic.

DEEPENING THE RHINE.

BIG GERMAN UNDERTAKING TO PROMOTE FOREIGN COMMERCE.

Consul J. I. Brittain, of Kehl, advises that the long talked of regulation of the river Rhine between Mannheim and Strassburg, Germany, will soon be an accomplished fact, as the three governments, namely, Alsace-Lorraine, Baden, and Bavaria, have come to an understanding and voted the money necessary for deepening the channel sufficiently to enable boats to reach Strassburg during all seasons.

The part of the work belonging to Alsace-Lorraine will begin very soon.

The participation of the three States bordering on the river, according to the vote of the Bavarian Chamber, is as follows: Alsace-Lorraine will pay 50 per cent ($166,600); 40 per cent will be paid by the Grand Duchy of Baden; of the 10 per cent remaining the government of Bavaria will pay $190,400. If this sum does not suffice to cover the 10 per cent—and it will scarcely do so, since the work, it is estimated, will cost $3,212,000—Alsace-Lorraine must make up the sum. Thus the Reichsland and Baden are the main contractors and will continue to pay their portion of the costs whatever the expense may be.

Some years ago extensive stone docks were built at Kehl and Strassburg for the accommodation of vessels coming up the Rhine, but these docks are practically useless during the stage of low water which usually exists for a period of from one hundred to two hundred days each year. Since the year 1892 the tonnage arriving by the Rhine has increased from 11,513 tons to 807,194 tons in 1905. During 1905 a navigable stage of water existed for a period of two hundred and sixty-eight days, but for the year 1904 the river was only navigable during one hundred and fifty days. In the latter year but 415,316 tons of merchandise arrived in consequence of the short period.

Bringing freight up the Rhine as far as Strassburg will reduce the

cost of transportation from all ocean points into southwest Germany and Switzerland. By deepening the canals and other waterways Strassburg will also have communication by water into France and Belgium. In 1905 1,340 vessels came up the Rhine to Strassburg, bringing 807,194 tons of freight; during the same period 1,437 boats arrived by the canals, bringing 258,013 tons of freight.

RAILWAY OPERATIONS.

TRAVELING IN SPAIN.

RAILROAD MILEAGE BOOKS CUT EXPENSES ONE-HALF.

Consul-General B. H. Ridgely, of Barcelona, has on several recent occasions been asked for information as to the railway kilometric or mileage book which the railway companies of Spain have been issuing on a new basis of charges and conditions for the past two years.

The average first-class fare in Spain is about 4 cents a mile (just double the first-class of some American lines and with only 60 pounds free baggage), but with these mileage books, which are good on all the railroads of Spain, the fare works out at 2.65 cents a mile for 1,210 miles down to 1.85 and 1.7 cents a mile for 5,000 and 7,500 miles.

In order to secure these mileage tickets, application must be made at any of the important railway stations of Spain at least 48 hours before the tickets are required. Simple blank forms to be filled up by the applicant are furnished at any of the railway offices and the application must invariably be accompanied by a 4½ by 3½ inch unmounted photograph of the applicant. This is glued on the inner cover of the mileage book. If desired, several persons may use the same book, but the book must then contain a photograph of each of these persons. There is no advantage in having several names on the same book, except that if persons are traveling regularly together the trouble of making out a separate application and the additional fee for preparing a separate book for each person is avoided by making a collective demand.

THIRD-CLASS TRAVEL ALMOST IMPOSSIBLE.

Second-class mileage books cost from 1.96 cents down to 1.27 cents per mile, while third-class mileage books are issued at one-third less than those for second class. In Spain it is almost impossible, however, to travel third class. As a matter of fact even second-class is not very satisfactory, for the reason that the express trains as a rule are limited to first class. However, for persons who do not object to crowds and slow traveling and long waits at railway stations second class is not impossible. It is said that tourist agents in central Europe either know very little about these economical Spanish kilometric tickets, or else for reasons of their own do not advise intending tourists to Spain as to their existence. Perhaps this is due to the fact that the Spanish railways allow the agents commissions on ticket sales. In any event, persons who want to travel economically in Spain should endeavor to supply themselves with the mileage. This can be done either at Gibraltar or at Algeciras by persons arriving in Spain by the Mediterranean route. Those coming from France may secure mileage at San

Sebastian, 30 miles beyond the frontier. Travelers arriving from France or Italy by the southern route may secure the tickets at Barcelona.

As an example of the saving that these tickets afford tourists, it may be stated that the first-class fare from Barcelona to Madrid alone is $15.85, while with a kilometric ticket of 2,000 kilometers (1,250 miles) which would cost $31.85 and which is good for three months, the trip from Barcelona to Madrid, thence to Toledo, Granada, Cordova, and Sevilla and back to Madrid could be accomplished. In other words, it costs about 50 per cent less to travel with the mileage tickets than with the ordinary tickets. Moreover, the first-class tickets are good on all trains. They are also good on the Madrid-Caceres and Lisbon line, thus enabling holders to visit Portugal.

CHINESE LINE PROMOTION.

MILLIONS OF CAPITAL SUBSCRIBED IN THE UNITED STATES.

Consul A. E. Smith, of Victoria, reports that it is current among the Chinese of that British Columbian city that $50,000,000 has been raised—largely in Canada and the United States—for the construction of the Canton and Hankow Railroad in China.

The principal promoter in Canada is a Chinese known as Charlie Yip Yen, long resident in British Columbia. In company with others he has traveled largely over the United States and Canada, and everywhere has been successful in raising funds for this project. It is stated that the proposed railway will be 1,800 miles in length, and run from Canton to Hankow, and thence to Peking. Four million dollars of the capital was subscribed by Chinese residents of Vancouver, Victoria, New Westminster, Montreal, and other points in Canada, while many more millions have been subscribed by Chinese living in New York, Chicago, San Francisco, and other cities of the United States.

Before leaving for China last week Yip Yen said that work had already been commenced on the railway and that it would be finished before the end of 1911. Chin Gee Hee, one of the best known Chinese merchants of Seattle, is largely interested in this enterprise, and is now in China superintending the initial proceedings. Large purchases of material have already been made and shipped to Canton. Chinese of Victoria say that it is now the policy of the Chinese Government to promote the building of railroads throughout the Empire and also to encourage native Chinese to control same. According to statements made by wealthy resident Chinese there is considerable idle capital among their countrymen in Canada and the United States, and it is believed there will be no difficulty whatever in furnishing the entire $50,000,000 as it may be called for.

SOUTH MANCHURIAN COMPANY ORGANIZATION.

Ambassador Wright transmits to the Department of State a revised copy of the translation of an order by the Government of Japan relating to the organization of the South Manchurian Railway Company.

The company is authorized by the order to engage in the traffic of the following railways: Tairen-Changchun, Nankuanling-Port Arthur, Tafangshen-Liushutun, Tashiciao-Yingkou, Yentai-Yentai Coal Mine, Sukiatun-Fushun, Mukden-Antunghien, all of which must be changed

to the 4 feet 8.5 inch gauge within three years from the date on which the company commences its operations.

The company is authorized to engage in the following accessory lines of business: Mining, especially the operation of the coal mines at Fushun and Yentai; water transportation; electrical enterprises; sale on commission of the principal goods carried by railways; warehousing; business relating to the land and buildings on the land attached to the railways, and any further business for which government permission has been given.

The total amount of capital stock of the company shall be 200,000,000 yen, of which 100,000,000 yen shall be furnished by the Japanese Government, and shares not owned by the Government shall be open to subscription by Japanese and Chinese subjects. The company will have its head office at Tokyo and its branch office at Dalny.

MEXICO'S COMMISSION.

GREATER CONTROL OVER RATES THAN HAS UNITED STATES COMMISSION.

The Mexican Investor, speaking of the government regulation of freight rates in Mexico, says:

Government regulation of freight rates in Mexico is virtually complete. It is done through a railroad commission consisting of a president and 6 members, all of them men with private occupations. This commission meets one day each week in the City of Mexico to receive and go over with traffic officers of the railroads any proposals for changes in rates. No freight rate can go into effect except it shall first receive the approval and sanction of the railroad commission. Absolute power rests with this body to decide whether any proposed rate or change of rate is just and reasonable. Thus its powers are essentially initiating, and larger and more direct than those of the Interstate Commerce Commission under the Hepburn law. The fact that a rate once in effect can be changed only by convincing the commission of the advisability from the standpoints of shippers, the public and government, as well as of the railroad, makes traffic officers exceptionally careful in determining what rates should be made. Yet, as a general thing, American railroad managers are not deterred from making rates which are in a sense experimental and designed to create or move some special traffic because such rates, if found too low in practice, are not easily changed. There have been instances when the commission has rejected proposed rates on the ground that they would be too low, just as there have been cases where the commission has refused to sanction rates which it thought to be too high.

MISCELLANEOUS.

SAVINGS AND INSURANCE.

FRANCE.

THE GOVERNMENT DIRECTS HER CITIZENS' INVESTMENTS.

French thrift and French savings permeate the nation to such an extent that home government bonds are held by the French people, principally the industrial classes, to the extent of over five billion dollars. How the Republic begins early to inculcate the savings habit in the people is explained in the following article by J. Martin Miller, consul at Rheims:

The public schools of France teach the pupils, both boys and girls, how to save money by depositing regularly in the Government savings banks, no matter how small the amount. The Government will furnish money to all public school pupils, under certain conditions, with which to help start an account to provide an income in old age. Pupils attaining certain degrees of profficiency in their classes receive as prizes bank books with 10 francs (franc 19.3 cents) credited in each. It is demonstrated to them what this will amount to at compound interest at 3 per cent when 21 years of age, also the amount they will have saved at that age if they deposit regularly one franc a week, one franc a month, etc.

The teachers of the public schools go out among the leading citizens annually just before the school year ends and ask for contributions in cash with which to make the savings bank book prizes. In most communities there is no trouble in raising what is needed. After the account is opened the teachers accept deposits from the pupils, and when one franc or more has been paid to the teacher by any pupil the amount is taken to the bank and credited in the book.

SICK AND OLD AGE BENEFITS.

Another plan opens to all pupils a means which provides an annuity in old age. Each pupil can deposit as much as he or she can, daily or weekly, up to 10 centimes (2 cents) per day, one-half of which applies to the fund for an old-age pension, and one-half is deposited with the school for a fund to be available in case of the sickness of the pupil or the parents. For instance, the pupil who deposits upon this plan 10 centimes a day (less may be deposited if desired) will have 5 centimes placed to his credit in the Cash National of Pensions for Old Age, and 5 centimes, the remaining one-half, will be held by the school for a sick fund to be paid out to the pupil in case of his own sickness, or that of either of his parents upon whom he depends for support,

but not to exceed 75 centimes (15 cents) a day as long as the money the pupil has credited to him in the sick fund lasts.

For every account of this kind the Government will, annually, give each pupil one-half the amount he has paid the school in this way, being a sum equal to the amount the pupil has credited to him for a fund to provide a pension in old age. So it turns out in the end that the pupil has all the money he paid in credited to him on the old-age pension account, and has in addition a sick fund to draw upon if needed. In case the sick fund is not used it is finally deposited to the credit of the old-age pension fund.

All teachers of each school make regular reports to the superintendent regarding the deposits of pupils, and the superintendent reports to the minister of education at Paris, and the accounts, as well as all school matters, are inspected frequently by the traveling inspectors.

SAVINGS BANKS AND GOVERNMENT BONDS.

No savings account in the Government savings banks is allowed to exceed 1,500 francs. This does not apply, however, to the Caisse Nationale des Retraites pour la Vieillesse. When an account has reached that sum the depositor is given notice of the fact and is informed that the money will be invested for him in Government rentes, nonredeemable bonds bearing 3 per cent interest. If the depositor does not respond or withdraw his money within three months after the date of this notice, the manager of the bank will invest the money in Government rentes and hold the bond subject to the disposal of the depositor. While this bond is not redeemable by the Government, it can be disposed of at any time to any bank for practically what it cost, the market value varying but little. After the 1,500 francs are thus disposed of the depositor must open a new savings account if he desires to continue. This method of investment is so popular with the farmers and peasant class that 22,221,660,644 francs, or $4,288,780,504 in rentes have been bought, principally by the working people of France.

There is another kind of Government bond, l'amortissable, also bearing 3 per cent interest, and is redeemable by annuities, but the masses of the people do not understand it and it is not popular. Its lack of favor is indicated by the fact that but 3,712,260,500 francs, or $716,466,276 of this class of bonds have been sold, or a total of both kinds of $5,005,246,780. The total debt of France amounted to $5,878,822,695, the figures being for 1905. So it will be seen that the bulk of the debt of France is represented in these bonds, held principally by the industrial classes.

There are two kinds of saving banks under Government control. The Caisse d'Epargne has banks in the principal towns and while the Government does not own that system it is under its direct control. Deposits in the postal savings bank can be made at any post-office. The Cash National of Pensions for Old Age, guaranteed by the State and under its control, is more of an old-age pension and life-insurance institution than a bank. Children can have an account opened for them when they are three years of age.

GOVERNMENT LIFE INSURANCE POLICIES.

There are two kinds of accounts, capital aliéné and capital réservé. A capital aliéné account provides for the payment of a certain sum after the age specified (never before fifty) but the policy holder gets

only the annuity during life, the amount paid in going to the institution when the policy holder dies. The annuity of a capital réservé is smaller, but the amount paid in goes to the heirs of the policy holder at his death. Thus an investment in the capital aliéné of 100 francs at 3 years of age will yield a pension of 51.22 francs if it begins at 50 years; 74.66 francs, beginning at 55 years; 114.77 francs, beginning at 60 years, and 190.32 francs, beginning at 65 years. Or if the 100 francs are invested at 20 years of age, the annuity would be 26.18, 38.16, 58.66, or 97.27 francs, if begun respectively at 50, 55, 60, or 65 years. Illustrating what an investment of 100 francs in the capital réservé account will produce as a pension, when the amount invested is to go to the heirs of the policy holder at his death, deposited at 3 years, would yield 41.15, 59.98, 92.21, or 151.91 francs, respectively, from 50, 55, 60, or 65 years; while if deposited at 20 years would return an annuity of 18.99, 27.63, 42.56, or 70.58 francs, from 50, 55, 60, or 65 years.

These policies may be purchased by members of either sex at any age from 3 to 65 years. In case the parents, or anyone for the child, should take out a policy at 3 years of age on the capital réservé plan, with a pension to begin at 50 and the child died at any age before 50, its nearest relatives would get the amount paid in. If, however, the policy is on the capital aliéné plan the amount invested goes to the institution.

The institution has been under the guarantee of the Government since June 18, 1850. It now has 2,065,148 policy holders and has had during its history 33,466,524. It now has 248,369 pensioners to whom it pays annually $6,870,855, or an average of nearly $28 each, and has paid insurance on account of the death capital réservé policyholders from the beginning $54,840,983. Altogether, since the foundation of the Caisse Nationale des Retraites pour la Vieillesse, there has been paid in as premiums by the policyholders $219,000,339.

SWITZERLAND.

HOW FOREIGN COMPANIES MAY DO BUSINESS IN THE REPUBLIC.

Consul R. E. Mansfield, of Lucerne, reports that there are 92 insurance companies operating in Switzerland, 29 of which are domestic or Swiss companies, 28 German, 23 French, 7 English, 3 American and 2 Italian. Of the total number 27 are engaged in life insurance, 18 fire, 17 accident. The others insure merchandise in transportation, against loss by freezing, inundation, etc.

The three American companies holding concessions in Switzerland write life insurance only. The law governing both domestic and foreign insurance companies is vested in the Federal Government, and in direct charge of the Federal council. Before being permitted to engage in business in Switzerland, insurance companies must submit to the Federal council authentic documents showing the condition of the company's charter, together with by-laws giving the plan of insurance, etc. The information concerning charter and regulations should give in detail the amount of capital stock, the number and amouut of shares subscribed, the amount of paid-up shares, responsibility of shareholders, etc.

Life-insurance companies must furnish the Federal council with facts concerning mortality tables, assessments, and net premiums, together with explanations of extra charges, if any; basis and method of calculating the reserve, and the manner of showing premiums. In accident insurance the fundamental principles must be explained to the Federal council and the extent and method of assumed responsibility between capital and income, the means by which the reserve for income is calculated, policies due but unpaid, and the plan for carrying forward unexpired premiums. Insurance companies are required to designate in each Canton in which they engage in business a judicial domicile where suit can be brought against them. They must also furnish to the Federal council a bond. Each company authorized to operate must furnish to the Federal Government each year a full statement of its accounts, which must cover each principal branch of the business.

LIFE-INSURANCE STATISTICS.

Insurance statistics furnished by the Federal council for the year 1904, the latest available, show that the 33 life-insurance companies doing business in the country had at the close of that year 154,414 outstanding policies, aggregating $156,190,195. The classification was 35 per cent, or $54,248,238, for full life; 60 per cent, or $94,045,717, for indefinite term, and 5 per cent, or $7,896,240 covering accident or death by special or specific cause. The companies received in premiums $6,913,352. The total expenses, including interest on guaranteed capital, etc., not counting losses on policies paid, was $3,698,517.

The life-insurance policies in force in Switzerland average $1,364 in value. Of the various companies represented, the American life companies' policies average considerably larger than those of any other country. The following table shows the total premiums paid to the various companies on policies issued in the different branches of insurance for the year 1904; also the per cent of premiums paid to foreign companies as compared with Swiss companies:

Branches.	Premiums.	Swiss societies.	Foreign societies.
Life	$6,913,352	$3,452,678	$3,460,674
Accident	2,524,915	2,213,436	311,478
Fire	1,986,690	1,405,155	581,535
Breakage of glass	46,351	18,171	28,180
Inundation	8,901	7,819	1,081
Robbery	42,261	21,704	20,556
Animals	77,875	11,415	66,459
Hail	170,922	170,922	.....
Transportation	437,910	395,929	41,981
Total	12,209,177	7,697,233	4,511,944
Per cent	100	63	37

The total premiums paid on all kinds of policies for 1903 was $11,683,979, showing an increase for 1904 of $525,198. The rate in Switzerland is low in every branch of the business except life. The character of the buildings and the general precautions taken to prevent fire reduces to the minimum the risk in fire insurance. The same can be said of insurance against damage to goods in transit within the country, where great care is exercised in the transportation of merchandise.

JAPAN.

OPERATIONS OF MARINE AND LIFE COMPANIES.

Vice Consul-General E. G. Babbitt sends from Yokohama the folfowing newspaper information concerning the insurance business in Japan:

A scheme is on foot in Kobé to form a marine insurance company with a capital of $2,500,000. Among the promoters are 15 foreign residents of Kobé and Yokohama, 5 Chinese, and steamship owners and large shippers of cargo in different ports in Japan.

A director of a Japanese life insurance company, in reference to the future of that class of business in Japan, states that there are at present in the country about 30 life insurance companies, including foreign companies; and the persons insured number about 800,000. These are insured to the amount of about $120,000,000, and half the amount is in the hands of three Japanese companies and the remaining half among the other 27 or 28 companies. Not a few of these hold only about $500,000. There can be no doubt that the life insurance business steadily increases, and it will be a number of years before all the companies take proportionate shares of the new business possible. In the meantime very keen competition will take place, and it will not be an easy task for foreign insurance offices to obtain good business in the interior of Japan, concludes this authority.

DENTISTRY AND MEDICINE.

GERMANY.

REGULATIONS GOVERNING PRACTICE.

In reply to a Buffalo, N. Y., inquiry, Consul-General A. W. Thackara, of Berlin, states that no examination is necessary for a dentist proposing to practice in Germany. He continues:

Anyone can do so, but no degree obtained from any college or institution outside the German Empire is recognized here. Consequently the holder of an American degree ranks simply as a mechanical workman and is not allowed the use of his title of doctor, or even to use the suffix D. D. S. after his name. He can, however, put on his sign and business card "Graduate of the ——— Dental College." He is called in German a "Zahntechniker," but has no other title.

For the benefit of those contemplating settling in Germany, it may be stated that "practice building" is much less rapid than in America, but the practice, once established, is far more valuable for this very reason and is much more readily sold if one should wish to dispose of it. The expense of living and the cost of conducting a dental practice in Germany are rather underrated in the United States, and many who come, seeking to open a practice, return discouraged to the States after finding the real conditions. Almost the only way for an American to become firmly and quickly established in this country is by entering the office of some well-known practitioner as an assistant. It also might be well to know that, from the very fact that a practice has the commercial value before referred to, in almost all instances of

contracts between dentist and assistant the assistant is not allowed to open an office in the same town or city after the termination of the contract. It is certainly unwise for those contemplating opening an office in Germany to dispose of a fairly good certainty and come over here with as little knowledge of the conditions as many of them do, unless they possess enough capital to afford to do a little compulsory waiting.

GOVERNMENT APPROBATION.

Vice-Consul J. L. A. Burrell writes from Magdeburg that in the German Empire only those dentists receive Government approbation who have taken a two years' medical course at a university, as well as a technical course of at least six months with a practicing, approved dentist (Zahnarzt), and who have passed the required State dental examination. As, however, the principle of "freedom of trade" (Gewerbefreiheit) permits anyone, viz, those who have not passed the State examination, to practice dentistry, there are, besides the regular approved "Zahnärzte" a great many so-called "Zahntechniker," or "laboratory men," who are recruited largely from former assistants of practicing dentists and with whom most of the foreign dentists practicing in Germany are officially classed. The possession of a German title is therefore not necessary, and most of the American dentists practicing in Germany, including some of the most successful, use the term "American dentist" in English, which seems to serve their purpose.

JAPAN.

TO WHOM LICENSES ARE ISSUED.

Ambassador Luke E. Wright, of Tokyo, transmits translations of recent ordinances relating to licenses for the practice of medicine and dentistry in Japan. The Government will grant licenses for their practice to graduates of foreign medical and dental colleges, or those who have practiced such professions in foreign countries who may satisfy the Japanese Government requirements.

COLOMBIA.

GOOD OPENING FOR DENTISTS.

For the information of those interested, Consul P. P. Demers, of Barranquilla, gives the following list of dental colleges in the United States and Europe whose diplomas are recognized in Colombia entitling the grantees thereof to practice:

Baltimore College of Dental Surgery, New York College of Dentistry, New York College of Dental and Oral Surgery, Pennsylvania College of Dental Surgery, Philadelphia Dental College, University of Pennsylvania, University of Chicago, Columbia University, Harvard University, University of Michigan, University of Buffalo, Ohio College of Dental Surgery, Louisville College of Dentistry, University of California, Royal Hospital of London and London School of Dental Surgery, National Dental Hospital and College, University of Liverpool, Victoria Dental Hospital, all the faculties of medicine of the German Empire, all the faculties of the Republic of France, all the

faculties of the Kingdom of Spain, and the University of Rome. Mr. Demers continues:

Such diplomas must be presented in Colombia authenticated by the secretary of the commonwealth or State wherever issued, the latter's signature and seal, in turn, being authenticated by the Colombian diplomatic agent or consul in the respective State. There are no American dentists located in this country, and very few, if any, European dentists, although a good field seems to offer itself to an up-to-date and capable foreign graduate. I would not advise, however, young graduates or practitioners with less than $1,000 in cash, besides their instruments and outfit, to come and locate here, as it might require the greater part of a year to work up a practice. And it would be useless to come without a good knowledge of Spanish. The instruments of a doctor or dentist are admitted free of duty here, provided they are accompanied by a certificate from the Colombian consul at the port of embarkation, stating the facts of the case.

Barranquilla is a city of 50,000, with only 13 dentists practicing therein, one dentist for each 3,846 inhabitants. Bogotá, the capital of Colombia, claims the distinction of having the only regularly organized dental college in Central and South America. It was founded by the late Dr. Guillermo Vargas Pandes, and has attained an international reputation. In Chile and the Argentine they have dental clinics in the general hospitals, but no diplomas are issued, only local licenses to practice. In Costa Rica and other republics there are only boards created by the Government to hold examinations and pass on the qualifications of the graduates from foreign schools.

STAVE TRADE.

FRANCE.

IMPROVED MARKET FOR IMPORTANT AMERICAN COMMODITY.

Consul-General R. P. Skinner, of Marseille, writes on the French trade in staves, an important one to the United States. This country exported staves to all nations for the fiscal year 1905 to the value of $3,613,635 and for the fiscal year 1906 $4,699,877 worth. Mr. Skinner shows in the following letter that France will probably need an increased number of staves this year:

While staves are received in considerable quantities in Marseille and other of the larger French ports, the principal volume of the trade is concentrated at Cette, the center of the wine-growing district, where there are ten houses of considerable capital, importing from 40,000 to 70,000 tons of staves per annum, worth from $1,351,000 to $2,123,000. The importing firms wholesale these staves to small coopers and large manufacturers of wine casks in the neighborhood. The cask ordinarily used at Cette is called "demi-muid" or "transport," contains about 600 liters (158.50 gallons) and requires staves of the following dimensions: Length, 40 to 44 inches; breadth, 3 to 6 inches, and thickness from 14 to 16 lines. The term "line" is a

localism, there being 12 lines to an inch. The prices actually paid for such staves are from $15.44 to $17.37 per 100.

RENTING CASKS PROFITABLE.

A cask of the character described is now worth from $9.65 to $10.03. A very large business is done at Cette in renting these casks at from 2½ to 4 centimes (5 mills to 7 mills) per day, and for this purpose there exists a stock of from 150,000 to 200,000 casks. They can be used from ten to fifteen years and are replaced to about that extent annually. For many years wine-barrel staves were supplied exclusively by Austria, but owing to the exhaustion of Austrian timber, importers have been looking recently to Russia and the United States. The first American staves reached the Cette market in an unsatisfactory state as to dimensions and finish and for a long time failed to compete successfully. Then American manufacturers adopted Austrian methods, so that for ten years the trade with the United States has been very extensive, as the following table of imports, in tons, at Cette during the last five years will show:

Origin.	1901.	1902.	1903.	1904.	1905.
United States	7,353	20,720	9,541	22,235	7,277
Austria	29,232	25,207	9,540	10,805	13,736
Roumania	3,829	6,678	7,006	934	947
Russia	11,665	20,935	22,112	19,148	15,354
Italy	2,744	2,430	1,003	659	620
Turkey	293	730	.....	.....	.....
Other countries	.....	.....	.....	.....	173
Total	55,116	76,700	49,202	53,781	38,107

The imports last year were much reduced owing to the depressed state of the wine business. This year, owing to the dry summer, the wine crop will be exceptionally good in quality and it is fair to assume that the stave business will be brighter.

[Names of prominent firms in this trade at Marseille and Cette are given by Mr. Skinner and can be obtained from the Bureau of Manufactures. The Marseille firms import for local and Cette markets as well.]

TRADE AT HAVRE.

Consul Alphonse Gaulin reports that about 80 per cent of the staves imported into Havre are those known as "extra-heavy pipe." He continues:

This is one of the principal French markets for staves. They are of white oak, 60 inches long, from 5 to 6 inches wide, and 1½ inches thick. About 10 per cent of the importations are made up of "extra hogshead" staves, about 48 inches long, and the remaining 10 per cent of claret and barrel staves—the former 40 and the latter 32 inches long. Staves shipped to Havre are sold by the "mille" (literally 1,000, but in reality 1,200). Those sent to Nantes, another large market, are sold in lots of 104, and those shipped to Bordeaux in lots of 101. Most of the staves received at this port come from Texas, Arkansas, and Louisiana, and are shipped as dunnage in vessels bringing cotton from New Orleans or Galveston. Staves carried in this manner are taken at the comparatively low freight rates.

MINIMUM RATES ON AMERICAN STAVES.

By the terms of a reciprocal agreement made between the United States and France, which took effect on June 1, 1899, the French customs duty on American staves was reduced from the maximum to the minimum tariff rate, and placed at 14.47 cents per 220.46 pounds if imported direct from an American to a French port. If imported into France via another European port or country the duty is 84 cents per 220.46 pounds. In ninety-nine cases out of one hundred French merchants, no matter what the articles they import may be, prefer shippers to quote prices either f. o. b. or c. i. f. exclusive of customs duty. Americans should, accordingly, comply with these requirements. Staves should be shipped in the rough, even in quality and dimensions, clean, dry, well seasoned, and free from wormholes or other defects which render them useless for barrel making. Local dealers say that some of the staves imported from the United States have wormholes in them, but that the so-called New Orleans white oak staves are usually free from these and other defects.

American staves are about the only ones that find a market in Havre. In Bordeaux, Cette, Montpelier, Beaune, Marseille, and other wine-making centers of the south and east of France large numbers of Austrian, Russian, Roumanian, and other staves are also used.

The following table shows the total importation, in pounds, of oak and other staves into France during the year 1904, the last year for which complete statistics have as yet been published:

Countries.	Oak staves.	Other staves.	Countries.	Oak staves.	Other staves.
United States	109,573,200	.....	Roumania	28,567,000	.....
Belgium	.....	134,200	Turkey	1,111,000	.....
Russia	50,908,000	57,200	Algeria	4,400	.....
Germany	759,000	.....	Other countries	673,200	19,800
Austria-Hungary	103,499,000	11,671,000			
Italy	1,889,800	391,600	Total	296,984,600	12,273,800

[Names of stave dealers at Havre are on file at the Bureau of Manufactures.]

ALGERIA.

IMPORTATION OF HARD WOOD AND STAVES.

Consul James Johnston, of Algiers, reports that the importation of staves and wood for staves is an important item in Algeria on account of the quantity of wine exported or consumed in the country

Hard wood for other purposes is imported on a very small scale, as there are no manufacturers of furniture of any consequence, and for flooring tiles or marble are universally employed. In 1905 the importation of staves and wood for staves appears to have been of the value of some $120,000, of which the United States furnished nearly the half, the rest coming principally from Italy and Austria.

[The most prominent importing houses in Algiers are named by the consul, and are indexed at the Bureau of Manufactures.]

UTILIZATION OF ALCOHOL.

GREECE.

EXTENDING USE OF DENATURED PRODUCT FROM CURRANTS.

Consul-General George Horton writes from Athens that the Greek Wine and Spirits Company, organized for the purpose of utilizing and consuming the Corinthian currants, the principal agricultural product of Greece, is making satisfactory progress in its efforts to dispose of the crude alcohol distilled from currants.

They have opened a permanent exhibition in Athens where their lamps, stoves, etc., may be seen and purchased, and they have established depots of denatured alcohol at many convenient points in Athens and other parts of Greece. The alcohol is sold in tins of 5 okes and up, at 80 lepta the oke. (One oke equal to 0.3513 gallon; $1 equal to 5.5 drachmas; 100 leptas equal 1 drachma.) A portable heating stove which they have on exhibition, which really throws out enough heat to warm a room 12 by 24 feet, consumes about 1½ okes in twelve hours. Lamps of from 24 to 32 candlepower can be kept lighted at an expense of from 4 to 6 lepta the hour. The company has in stock lamps of from 12 to 1,500 candlepower.

There has been no opportunity to put the portable stoves to a practical test as yet, as the supply has only recently been received and the cold weather has not yet come on. The lamps are being sold, however, and are giving great satisfaction. They are fitted with mantles and give an extremely bright light.

A recent editorial in "l'Economiste d'Orient" predicts that denatured alcohol will take the place of petroleum for lighting purposes in Greece, rather than gas, electricity, gasoline, or acetylene, the use of which is confined to the principal cities. The same editorial calls attention to the fact that the tax on petroleum constitutes one of the principal sources of revenue for the payment of the public debt, and it predicts that the international control will be compelled to put a tax on denatured alcohol to reimburse itself in case the latter should largely take the place of petroleum.

SWITZERLAND.

GOVERNMENT REGULATES AND CONTROLS THE OUTPUT.

Consul Edward Higgins, in a report from Berne, says that the Federal Government has a monoply of the manufacture and importation of alcohol in Switzerland.

Three-fourths of the requirements of the country are imported from Austria, Germany, Italy, Belgium, and France. One-fourth is furnished by domestic distilleries under contract with the Government. Their output must not exceed 30,000 hectoliters (792,000 gallons) a year. The governmental monopoly, however, does not apply to the distillation of domestic grapes, wines, wine lees, stone and kernel fruit, and berries, which is carried on in thousands of small farm and kitchen distilleries producing about 800,000 gallons of low grade alcohol yearly. The consumption of alcohol from these private distilleries is local, with the exception of kirschwasser.

In 1905 1,826,700 gallons of alcohol for drinking purposes were sold, valued at $1,856,146. The price ranged from $0.96 per gallon for 90 per cent crude spirit, to $1.04 per gallon for 95 per cent wine spirit. Liqueurs, etc., in bottles or casks, may be imported by private parties, and, in addition to the customs duty of 40 francs per 100 kilograms ($7.72 per 220.46 pounds) gross weight, must pay a monopoly tax of 80 francs per 100 kilograms ($15.44 per 220.46 pounds) irrespective of the degree of alcohol contained. For every degree of alcohol above 75 an extra tax of $0.154 per 220.46 pounds is collected.

The net income derived from the alcohol monopoly, amounting to $1,200,000 yearly, is divided among the different cantons in proportion to their population. They must devote one-tenth of their quota to combating alcoholism and its effects.

DENATURED PRODUCT.

Denatured or industrial alcohol is sold by the Government at cost—about 25 cents a gallon. It must not be used in the preparation of liqueurs. It is prohibited to mix any substance with denatured alcohol that would counteract the effect of the denaturization or change its taste or smell. There are two methods of denaturizing the alcohol, the complete and the incomplete. The complete method is applied to spirits which are to be used for heat, light, and power purposes. This alcohol is fully denatured; pyridin is used as a base, and the process is secret and frequently changed. Incomplete denaturization prevents the alcohol from being used as a beverage, but does not destroy its properties for special uses.

The process of denaturizing varies according to its intended use. To each 100 parts absolute alcohol the following substances are added: (1) For vinegar: 5 parts absolute acetic acid mixed with at least 200 parts water. Wine or beer may be substituted for the water. (2) For varnish, polishes, etc.: 2 parts wood alcohol and 2 parts benzin, or ½ part turpentine oil, or 5 parts wood alcohol, or 4.4 pounds shellac, or 4.4 pounds copal resin, or 1.1 pounds camphor. Camphor may be used only by firms using the finished product in their own factories exclusively. (3) For paints and colors: 10 parts sulphuric ether, or 1 part benzol, or 1 part coal-tar oil, or ½ part turpentine oil, or 25 grams bone oil, or 25 grams aniline blue (or eosin, or violet, or fluorescin), or 100 grams naphthaline, or 4.4 pounds technically pure methyl alcohol, or 1.1 pounds camphor.

AMOUNT USED IN MANUFACTURING.

The sales of denatured alcohol in 1905 were: Completely denatured, 95 per cent, 1,611,000 gallons, at $0.297 per gallon; incompletely denatured, 95 per cent, 720,000 gallons, at $0.248 per gallon. A discount of from 1 to 10 per cent is allowed, and varies with the quantity purchased. The completely denatured alcohol was used almost entirely for heating purposes. The 720,000 gallons of incompletely denatured alcohol was used for various industries in the proportion of 33 per cent for artificial silk, 20 per cent for sulphuric ether, 14 per cent for paints and colors, 10 per cent for vinegar, 9 per cent for varnish, shellac, etc., 6 per cent for chemical products, and 5 per cent for acetic ether. Included in the 3 per cent for miscellaneous uses were the following: Preparation of cotton cloth, celluloid, rubber tissues, soaps and perfumery, printing on cotton, fulminate of mercury, mixing with

illuminating gas to prevent freezing, gunpowder, surgical bandages, tree wax, galvano-plastic, preservation of natural history specimens, preservation of plants, tobacco, photochemical articles, and scientific purposes.

SWEDEN.

PRODUCT MADE FROM PEAT.

Consul R. S. S. Bergh, who made previous reports on the Swedish experiments in making alcohol from peat, now writes from Gottenborg:

In 1903 Victor Frestadius, civil engineer, started these experiments. The government granted him a subsidy of $2,680 and private persons subscribed $10,720, so that the experiments could be carried further, on a larger scale. The experiments seem to have been expensive, however, and last spring operations had to be stopped on account of lack of money. In the fall operations started again, with assistance of the inventor's friends, and it is claimed that a satisfactory result has been obtained, especially as it has been found that the by-products of the process can also be sold. A company, Aktiebolaget Tourbière, has now been organized in Stockholm for the purpose of exploiting the invention. It is stated that the inventor thinks that the price of alcohol made from peat will be less than one-half of the present price of alcohol and lower than the lowest price of refined petroleum.

UNITED STATES.

SMALL DISTILLERIES CAN BE ESTABLISHED FOR $200.

Internal-Revenue Commissioner Yerkes, answering an inquiry recently as to how many gallons of denatured alcohol will approximately be needed in the industries for 1907, says:

"Having absolutely nothing to base an estimate upon, it is not possible for me to make an estimate as to the quantity of denatured alcohol that will be consumed in that way. No formal applications have as yet been made by distilleries for approval of denaturing bonded warehouses. Such applications could not be filed for the reason that the proper blanks have not as yet been placed in the hands of collectors. At present there are forty distilleries in the United States manufacturing what might be termed commercial alcohol."

In reply to a criticism of the law on the ground that regular distilleries only can engage in the manufacture of denatured alcohol, enabling the whisky trust to secure practically a monopoly, Mr. Yerkes said:

"This office knows of no process by which alcohol can be manufactured except by distillation, and as regular distilleries are the only kind recognized by the law, alcohol manufactured under the supervision of this department must be manufactured at regular distilleries. There are absolutely no limitations as to the size of a distillery that can be operated under the law. There are over 1,000 distilleries in operation now, at each of which the daily spirit producing capacity is less than 30 gallons. Many of these were set up on an outlay of less than $200. So far as the internal-revenue laws are concerned, either in theory or practice, the smallest and crudest distillery can produce alcohol, if as a business proposition it is deemed advisable to do so. The small distilleries have always been treated by this department with the same consideration as the larger ones.

HOW A FARMER MAY PRODUCE DENATURED ALCOHOL.

"If a farmer or other person desires to go into the business of manufacturing denatured alcohol, at a plant however small, he will be required to construct his plant in the manner prescribed by the general laws and regulations. He will be required to give a bond, the effect of which is to prevent him from defrauding the Government of the tax on any distilled spirits produced by him. He will be required to establish a distillery warehouse; to deposit the spirits produced by him in this warehouse; to establish a denaturing bonded warehouse, and to tax pay or denature, just as he may wish, the alcohol produced by him. All of this will be done under governmental supervision, but the Government pays for this supervision. The manufacturer of alcohol does not bear one cent of it. There is no objection to a farmer manufacturing his alcohol in 'his back yard' provided he wants to establish a distillery there. If you will take the trouble to investigate you will find, in my opinion, that the laws and regulations relating to the manufacture of alcohol in Germany do not differ to any great extent from the laws and regulations in this country."

TRADE-MARK RIGHTS.

CUBA.

DECISION BY THE SUPREME COURT OF THE ISLAND.

Mr. Edwin V. Morgan, minister to Cuba, reports to the Department of State regarding a recent decision of the supreme court of Cuba, by which the owner of a foreign patent is confirmed in the enjoyment of his patent rights. It is not known whether this decision, by implication, may be interpreted as protecting foreign trade-marks as well as patent rights. The minister forwards a clipping from the Habana Post of recent date explanatory of the decision of the court. The Habana Post says:

The supreme court of the island of Cuba has just rendered a decision of the greatest importance to importers of every kind of patented goods. The decision will mean the preventing in the future of many frauds which have discouraged those interests in this branch of commerce in Cuba.

For years importers of patented articles have been prevented from importing certain classes of machinery and many useful things because some one on the island had stolen the patent. The way the fraud was committed was by obtaining the patented article from the United States or other countries, and delivering it to the Bureau of Patents here as their own.

In this way they effectually controlled the sale of the article in this market while the real patentees were powerless to help themselves.

The company succeeding in beating this fraud is Gomez & Co., of Santa Clara street, manufacturers and importers of hat bands. Some months ago this company imported a patented hat band, and were doing a large business with it, when a man by the name of Jose Vidal y Alvarez obtained in Cuba a patent for the same thing. Then the

house of Gomez was compelled to either forego the use of the patent or buy only from Vidal.

The Gomez house took the case to court, and after the usual long wait the trial was held and the decision rendered in favor of the plaintiff. Vidal, however, appealed the case, and it went to a higher court. In the latter Vidal won. Gomez & Co. succeeded finally in appealing the case to the supreme court, where it has been for months.

The case was called for trial four days ago and the decision rendered yesterday in favor of the plaintiff, thus settling once and for all a contention that has not only caused honest importers in Cuba a great deal of trouble, but has also given the island of Cuba a black name with manufacturing interests in several foreign countries.

ANOTHER SIMILAR EVIL.

It is not known as yet whether the decision of the supreme court will have any effect on another similar evil or not. The other evil, or, rather, fraud, is the stealing, not of patents, but of trade-marks. Some men in Cuba, upon seeing a shoe or a soap or some drink that happened to be well advertised in the United States or elsewhere, have registered the trade-mark here. The result has been that when the real manufacturer arrived on the scene he found that he would either have to change the name of his product or pay a species of blackmail before he could sell his goods under their own name.

As the fraud is so similar to the one of the patents, some of the best legal authorities in the city declare that the first case of the kind carried to the supreme court will be settled in the same way.

IRELAND.

NATIONAL MARK FOR IRISH PRODUCTIONS.

Consul Henry Culver, in a report from Cork, says that Ireland has now a trade-mark with which her products, manufactured and otherwise, are to be stamped, insuring their genuineness, while a penalty may be inflicted for its improper use. The Cork Constitution says that "it will henceforth be extremely difficult to palm off imported stuff on the public as Irish made, as the trade-mark will be a guaranty of genuineness of the native article, and any attempt to copy it will be attended with considerable risk."

EUROPEAN EMIGRATION.

CONTINUED INCREASE OF POPULATION FROM ITALY.

Consul-General Hector de Castro quotes the latest official statistics published by the department of emigration in Rome, which show that 458,613 Italians emigrated during the first six months of 1906.

Of that number 286,103 applied for passports for trans-Atlantic countries and 172,510 for countries bordered by the Mediterranean Sea. During the same period in 1905 the emigration amounted to 430,579 individuals, of which 245,868 for trans-Atlantic countries and 184,711 for other countries. The emigration has therefore increased by 28,034 individuals during the first six months of 1906 over the same

period in 1905. It also appears that during the first six months of 1906 the number of emigrants to trans-Atlantic countries increased by 40,235, while the number of emigrants to other countries decreased by 12,201. The larger amount of emigrants is furnished by the districts of Sicily, Puglia, Marche, Campania, and Tuscany, while there is a decrease from Calabria, Venice, Abruzzi Molise, and Lombardy.

DEPOPULATION OF GREECE.

Consul-General George Horton writes as follows from Athens:

Information received by the Government from various Greek provinces indicates that emigration to America is increasing to an alarming extent. A committee of deputies has been appointed to look into the matter, and it is probable that measures will be adopted to restrict and limit emigration from Greece. It is estimated that the year 1906 will show that the number of those who have expatriated themselves will reach 20,000. Hitherto emigration has taken place principally from the Peloponessus, but it is now spreading to central Greece, to Thessaly, and the islands. To the last call for conscripts for the army in last September not more than half the usual number responded.

WORLD EXPOSITIONS.

SPAIN.

INTERNATIONAL ART EXHIBITION AT BARCELONA.

Consul-General B. H. Ridgely, of Barcelona, announces two forthcoming Spanish expositions:

The municipality of Barcelona will hold in Barcelona, from April 23 to July 15, 1907, their Fifth International Art Exhibition, in which all artists are invited to participate. Any works which have not figured in the former exhibitions or been publicly exhibited in Barcelona will be admitted to this exposition on passing an examination by the examiners under the following classifications, namely: Fine arts; paintings of all kinds and classes; drawing; engraving in all processes; models of stage scenery; sculpture of all kinds; embossing; artistic reproductions of classic works of painting and sculpture; artistic industries; metal work in all its branches; enamels; artistic foundry work; pottery and glass; mosaics; painting on glass; incrustations; cabinet work; furniture and artistic carpentry; decorative imitations and appliances; carpets; cloths; prints; embroidery; leather work, and lace; and reproductions of classic works of sumptuary art of all kinds. The fixed time for the reception of intended exhibits is March 15 to 30.

It is announced that there will be a generous list of prizes, and that exhibits which are awarded first or second class medals may be purchased for the various municipal museums of Spain. This exhibition has always attracted considerable interest in Europe, and it would probably be worth the while of American artists to exhibit here.

FIRST INTERNATIONAL EXPOSITION OF AUTOMOBILES IN SPAIN.

An international automobile exposition is to be held at Madrid during the first fifteen days of May, 1907, called the "Primera Exposición Internacional de Automobilismo, de Ciclismo y de Deportes en

España." The president of the exposition has been chosen in the person of the Count of Penalver, and delegates have been appointed in Paris and London. It seems to me that American manufacturers who wish to enter Spain with their automobiles might do well to exhibit at this exposition. If the American buckboard automobile which sells in the United States at $450 is as good a product as it is believed to be, I would particularly advise that a display of automobiles of this sort be made at the exposition in question. Incidentally, I may add that it will not be worth while to send any automobiles here which are not strong, simple, and good hill climbers. There is a prejudice against one-cylinder motors all over the continent of Europe, but it is possible that our one-cylinder buckboards might succeed here if they have force enough to go up stiff hills and do not vibrate too much.

If there are any useful two-cylinder buckboards they too might be exhibited to advantage, even if the prices were a little higher than the one-cylinder machine. What Spain requires is a cheap and sturdy machine, and I repeat that the approaching exhibition would be a good place to exhibit such a product. The rules and regulations of the exposition have not yet been published or announced, but inquiries may be addressed to Señor Conde de Penalver, Presidente de la Primera Exposición Internacional de Automobilismo, en cuidado del Real Automobile Club, Madrid.

PARAGUAY.

MACHINERY EXHIBIT WILL OPEN END OF MARCH.

Consul John N. Ruffin, of Asuncion, referring to his previous report on the postponement of the Paraguayan Agricultural Exposition to the month of December, now states that the opening is again postponed until March 31, 1907, principally on account of the effects of the drought, locusts, and the revolution of last year, by reason of which latter very little was done in the way of agriculture.

Machinery will now be received from February 15 to 28, live plants from March 15 to 27, fruits and vegetables from March 26 to 30, cultivated plants from March 5 to 24, all classes of rural industry during the month of March, milk industry and products from 25 to 31, dairy industry from 25 to 31, bee and cereal culture from the beginning to end of February, and fowls of all classes from March 15 to 25. Although the foregoing are the given dates for entries the president of the Agricultural Society informed the writer he would see that exhibits were placed should they arrive a little late.

It would be of special interest to agriculturists in general, as well as of public interest, if small, economical machinery for making cheese, butter, the elaboration of coffee, rice, peanuts, the breaking of palm nuts, small cotton gins, small flour mills, starch-making machinery, fiber machinery, and that for making oil, also apparatus for cutting and sawing trees, be placed on exhibit.

They should be things of small cost and within the reach of small agriculturists generally. There are many classes of machinery made in the United States, such as mentioned above, operated by small gasoline or kerosene engines, also hot air engines for pumping water on cattle ranches, which would sell well if they could be so exhibited that farmers could see them in operation.

MANCHURIA.

JAPANESE COMMERCIAL EXHIBITION AT MUKDEN.

Consul-General Willard D. Straight, of Mukden, quotes the Japanese consul-general there as stating that it would be possible for the American manufacturers or merchants desirous of showing their goods to obtain floor space in the Commercial Exhibition, which was booked to be opened there about November 15. The enterprise is conducted under the auspices of the chambers of commerce of the six principal cities in Japan, who, assisted by the Government, have subscribed the sum necessary to meet the expenditure incurred.

Floor space will be let at the rate of $15 per 6 feet square for the three months of the exhibition, at the expiration of which period the building will be used as a bazaar, where it will doubtless be possible for American firms to sell their wares. Japanese Consul Hagiwara suggests that in case any manufacturer should desire to exhibit agricultural or other machinery of considerable size and great weight, arrangements could be made for the erection of special sheds within the grounds.

SCOTLAND.

PROPOSED NATIONAL EXHIBITION.

Consul Rufus Fleming advises that a Scottish national exhibition will be held in Edinburgh in 1908. According to the present plan of the directors, the main purpose of the exhibition will be to set forth, by comparison, the principal phases of national progress in social life, industries, arts and sciences, inventions and discoveries, etc., during the last two hundred years. England, Ireland, and foreign countries are to be invited to make exhibits on a similar line, showing especially the more notable examples of economic evolution in two centuries. It is intended, also, to provide ample space for general exhibits.

UNITED STATES.

INTERNATIONAL AFFAIR AT SEATTLE.

The city of Seattle, on Puget Sound, is to hold an international exposition in the summer of 1909, to be known as the Alaska-Yukon-Pacific Exposition. The primary purpose is to exploit the resources and potentialities of the Alaska and Yukon territories in the United States and the Dominion of Canada, and to make known and foster the importance of the trade of the Pacific Ocean and of the countries bordering upon it. The exposition, it is said, will represent an expenditure of approximately $10,000,000 when the gates are officially opened on June 1, 1909.

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CONSULAR AND TRADE PUBLICATIONS.

The publications made up chiefly of reports from United States consular officers in foreign countries include the following:

COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.
REVIEW OF WORLD'S COMMERCE, being a summary of the annual reports contained in COMMERCIAL RELATIONS.
DAILY CONSULAR AND TRADE REPORTS, issued daily, except Sundays and legal holidays, mailed gratuitously to commercial and industrial organizations, manufacturers, exporters, and the press.
MONTHLY CONSULAR AND TRADE REPORTS, compiled from the daily, and issued every month with index.
SPECIAL CONSULAR REPORTS, on particular subjects, made in pursuance to instructions from the Departments of State and of Commerce and Labor.

Until July, 1903, all Consular Reports were issued by the Bureau of Foreign Commerce of the Department of State; from that date until June, 1905, they were issued by the Bureau of Statistics of the Department of Commerce and Labor, with which the Bureau of Foreign Commerce of the Department of State was consolidated July 1, 1903; since July 1, 1905, they have been issued by the Bureau of Manufactures, Department of Commerce and Labor. For details of these publications, and the reports remaining for distribution, address "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

The publication of reports on specific subjects, in separate form, was begun in 1890. The editions of many of them are exhausted. The following titles are available for distribution:

Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries; Market for Ready-Made Clothing in Latin America; Foreign Imports of American Tobacco; Cigar and Cigarette Industry in Latin America.
Vol. 23 (1901).—Part I. Gas and Oil Engines.
Vol. 24 (1902).—Creameries in Foreign Countries.
Vol. 25 (1902).—Stored Goods as Collateral for Loans.
Vol. 26 (1903).—Briquettes as Fuel in Foreign Countries.
Vol. 27 (1903).—Markets for Agricultural Implements and Vehicles.
Vol. 30 (1904).—Emigration to the United States.
Vol. 32 (1904).—Foreign Markets for American Fruits.

A few copies of reports made by special agents on trade conditions in the countries visited by them are also available, as follows:

Brazil.	*Cuba.*	*Japan and Corea.*
China.	*India.*	*Mexico.*

"Trade with China" is a pamphlet of 110 pages, illustrated, with an introductory chapter on Packing. It is compiled from reports made by special agents which were printed in Daily and Monthly Consular and Trade Reports. A few copies are available.

Of the MONTHLY CONSULAR REPORTS, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Department will be grateful for the return of any copies of the Monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, franking labels to be used in lieu of postage in the United States, the Philippine Islands, Hawaii, and Porto Rico will be forwarded.

Persons receiving CONSULAR REPORTS regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

All communications relating to CONSULAR REPORTS should be addressed, "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

VALUES OF FOREIGN COINS AND CURRENCIES.

[As given by the Director of U. S. Mint and published by Secretary of the Treasury Jan. 1, 1907.]

COUNTRIES WITH FIXED CURRENCIES.

Countries.	Monetary unit.	Value in U.S. gold.	Coins.
Argentina	Peso	$0.96.5	Gold—argentine ($4.82,4) and ½ argentine; silver—peso and divisions.
Austria-Hungary	Crown	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns; silver—1 and 5 crowns.
Belgium	Franc	.19,3	Gold—10 and 20 francs; silver—5 francs.
Brazil	Milreis	.54,6	Gold—5, 10, and 20 milreis; silver—¼, 1, and 2 milreis.
British N. A. (except Newfoundland).	Dollar	1.00	
British Honduras	do	1.00	
Chile	Peso	.36,5	Gold—escudo ($1.82,5), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Colombia	Dollar	1.00	Gold—condor ($9.64,7) and double condor; silver—peso.
Costa Rica	Colon	.46,5	Gold—2, 5, 10, and 20 colons ($9.30,7); silver—5, 10, 25, and 50 centimos.
Denmark	Crown	.26,8	Gold—10 and 20 crowns.
Ecuador	Sucre	.48,7	Gold—10 sucres ($4.8665); silver—sucre and divisions.
Egypt	Pound (100 piasters).	4.94,3	Gold—5, 10, 20, and 50 piasters; silver—1, 2, 5, 10, and 20 piasters.
Finland	Mark	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Mark	.23,8	Gold—5, 10, and 20 marks.
Great Britain	Pound sterling	4.86,6½	Gold—sovereign (£) and half sovereign.
Greece	Drachma	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	Gourde	.96,5	1, 2, 5, and 10 gourdes; silver—gourdes and divisions.
India	Pound sterling[a]	4.86,6½	Gold—sovereign (£); silver—rupee and divisions.
Italy	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan	Yen	.49,8	Gold—5, 10, and 20 yen; silver—10, 20, and 50 sen.
Liberia	Dollar	1.00	
Mexico	Peso[b]	.49,8	Gold—5 and 10 pesos; silver—dollar[c] or peso and divisions.
Netherlands	Florin	.40,2	Gold—10 florins; silver—¼, 1, and 2½ florins.
Newfoundland	Dollar	1.01,4	Gold—$2 ($2.02,7).
Norway	Crown	.26,8	Gold—10 and 20 crowns.
Panama	Balboa	1.00	Gold—1, 2½, 5, 10, and 20 balboas; silver—peso and divisions.
Peru	Libra	4.86,6½	Gold—½ and 1 libra; silver—sol and divisions.
Philippine Islands	Peso	.50	Silver—peso, 50, 20, and 10 centavos.
Portugal	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Ruble	.51,5	Gold—5, 7½, 10, and 15 rubles; silver—5, 10, 15, 20, 25, 50, and 100 copeks.
Spain	Peseta	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden	Crown	.26,8	Gold—10 and 20 crowns
Switzerland	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Piaster	.04,4	Gold—25, 50, 100, 250, and 500 piasters.
Uruguay	Peso	1.03,4	Gold—peso; silver—peso and divisions.
Venezuela	Bolivar	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

COUNTRIES WITH FLUCTUATING CURRENCIES.[d]

Country and monetary unit.	Apr. 1, 1906.	July 1, 1906.	Oct. 1, 1906.	Jan. 1, 1907.
Bolivia:	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Silver boliviano	47.8	48.0	48.5	51.0
Central America:				
Silver peso	46.5	48.0	48.5	51.0
China:				
Amoy tael	78.3	78.8	73.0	83.6
British dollar			52.3	55.0
Canton tael	78.1	78.5	79.2	83.3
Chefoo tael	74.9	75.3	76.0	79.9
Chinkiang tael	76.5	76.9	77.6	81.6
Fuchau tael	72.4	72.8	73.5	77.3
Haikwan (customs) tael	79.7	80.1	80.8	85.0
Hankow tael	73.3	73.7	74.3	78.2
Hongkong dollar	51.5	51.8	52.3	55.0
Kiaochou	77.3	77.7	77.0	81.0
China—Continued.				
Mexican dollar			52.6	55.4
Nankin tael	77.5	77.9	78.6	82.7
Ningpo tael	75.3	73.9	76.4	80.3
Newchwang tael	73.4	75.7	74.5	78.4
Peking tael	76.3	76.8	77.5	81.5
Shanghai tael	71.5	71.9	72.6	76.3
Swatow tael	72.3	72.7	73.4	77.2
Takau tael	78.8	79.2	79.9	84.1
Tientsin tael	75.9	76.3	77.0	81.0
Persia:				
Silver kran	8.8	8.8	8.9	9.4
Straits Settlements:				
Silver dollar			52.3	56.8

[a] The rupee, $0.3244½, 15 to the sovereign, constitutes the money of account.
[b] Seventy-five centigrams fine gold.
[c] Value in Mexico, $0.498.
[d] Coins of silver-standard countries are valued by pure silver content at average market price of silver for the three months preceding date of circular issued by U. S. Treasury Dept.

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MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C. MARCH, 1907 No. 318

CEREALS.

GRAIN TRADE COMPLAINTS.

GERMANY.

EUROPEAN DEALERS UNITING AGAINST AMERICAN PRACTICES.

Consul Thomas R. Wallace, in a report from Crefeld, says that the grain dealers in northern and western Europe have been holding meetings, the principal purpose of which seems to be to take united action with regard to a change in the rules and methods of transacting business with the United States in their line, and to correct abuses now existing in the same. The consul continues:

The grain trade from the United States with this district has been declining for some time, and if such dissatisfaction becomes general throughout Europe the losses to the people of America in this important branch of their export trade will be enormous. To gain some idea of the causes of the complaints regarding the grain exported from the United States I have made personal inquiry among the millers and dealers in these products, and am told that the conditions complained of here are the same all over Europe.

The dealers say they have suffered excessive losses through the purchase of grain from America by its not grading up to the standard given in the inspector's certificate in kind, quality, or condition when received. Wheat, sold as good winter wheat and so certified to by the inspector, is very often found to be new wheat mixed with old and often wormy wheat. Grain often arrives in very bad condition. Wheat purchased as new is found weevilly—very good wheat with badly damaged grain mixed with it.

Corn is started on the long voyage in an unfit condition and upon arrival is found spoiled. It is claimed that if corn is properly dried it will arrive in good condition; that if shipped soon after being gathered it will spoil on the journey. They claim that at all times old corn should be mixed with new to insure its reaching the port of arrival in good condition.

They say further that the American shippers well know these facts, but of late years refuse to take these precautions, and because of the rule that the inspector's certificate is final the purchaser is compelled to suffer the loss arising from this negligence of the shipper. If the purchaser presents a claim for loss caused by grain received in bad condition, or of inferior quality from that certified to by the inspector, he receives no satisfaction from the shipper.

UNITED STATES ALONE TO BLAME.

I am informed that such conditions have become worse, that the purchaser here does not receive what he buys, and that no reliance can be placed on the inspector's certificate. The result is the miller has ceased to buy American grain for his mill and the farmer for his stock. It is further said that grain received from South America, Russia, or Roumania arrives in good condition, that received from the United States alone being bad.

A general meeting of those engaged in the grain trade was held in 1905 by representatives from Holland and Germany. A meeting was held in London, in November last, in which appeared representatives from Germany, France, Holland, Belgium, Denmark, Italy, and England, Ireland, and Scotland, and still another meeting was held on December 12 at Berlin. At all of these assemblies the principal topic for discussion was methods to correct the alleged abuses in the grain trade with the United States.

There are many remedies proposed to abolish these alleged abuses. The Rhenish-Westphalian dealers want "rye terms" or "rye contracts" and European arbitration; grading for exports the same as grading for imports; grading to be fixed for each year and to be communicated to the European exchanges; and minimum natural weight to be agreed upon. I am told that "rye terms" are as follows: "Slight dry warmth, through which the grain will not be affected, is no reason for objection. But the goods damaged through sea water or in any other manner shall be accepted by the buyer, but with a compensation for inferiority, which, through arbitration, shall be fixed on a basis of the contract price."

From the sources of information that I have so far been able to reach I learn that almost all the dealers demand that corn be sold upon the European "rye terms." All are agreed that the present system of inspection should be changed and that the inspector's certificate should not be accepted as final as to quality unless they are safeguarded. Some say there should be guarantees for quality and quantity, that standards should be established for the new crop in America and samples be sent to Europe as a basis.

COERCIVE MEASURES THREATENED.

The dealers having radical or extreme views do not believe that an amicable settlement of the matter can be made with the shippers unless coercive measures are used and this is one of the reasons of the international character of these assemblies. It is said by them that some of the same conditions prevailed in the grain trade with Russia some time ago. The Russian dealers were invited to Berlin to a conference, but treated the action with indifference, whereupon the German dealers refused to buy any Russian grain, and in a short time Russia asked for a meeting.

The seriousness of this movement, threatening the loss of trade in this important branch of American exports, should not be underestimated. It is general in its character and covers the countries buying about all of the surplus crops of the United States.

The unanimity of sentiment expressed at these meetings indicates there must be good cause for complaint, and as representatives of nearly all the nations of Europe are taking part in these assemblies and the meetings have become international in character, it is time the

American people, who are interested in this great and important branch of the nation's industries and commerce, should take some action to preserve it from further losses. The questions involved in these disputes have become national in character, and the interests of the shipper should be held subordinate to the national industry in so far as national interests are involved. The moral question involved affects the character of the whole American people as to their standard of honesty and integrity in business, and is of more importance to them than that of losses that may accrue to American trade.

FRANCE.

FAULTY AMERICAN GRAIN INSPECTION METHODS.

Consul-General Robert P. Skinner, of Marseille, thinks it is highly desirable that certain facts in regard to American grain-selling methods be given immediate and wide circulation, and that something be done either by action of Congress or by the concerted action of American commercial bodies to reform or, rather, standardize the system under which the great cereal exporting business has been created. Mr. Skinner writes:

There is little popular knowledge in the United States in regard to the fact that wheat, corn, grease, and similar products of American origin are not now sold abroad by sample, but by nominal grade. The European buyer knows nothing of the merchandise whatever before it reaches his possession. He imports and resells various classes of merchandise the quality or grade of which is certified to him, not by the merchant who has sold him the article, but by the official inspector of a board of trade or other equivalent body at the port of shipment. He pays for the goods before he receives them, and when the exporter in the United States delivers to him a certificate of inspection, declaring the goods to be of a given grade, he has no alternative but to honor the drafts. The bargain is absolutely final upon the production to him of this certificate of inspection.

Although no two ports in the United States may absolutely agree as to the descriptive terms to be applied to a given grade of wheat, although previous shipments may have been of obviously different quality, if the certificate delivered conforms to the grade ordered, the buyer must accept delivery. These are "American conditions." The fact that for many years we have exported nearly all our surplus agricultural products under these conditions speaks well for American business methods, and the fact that these methods are generally acceptable is of advantage to the people of the United States.

STRENUOUS OBJECTIONS.

Of late years the murmurs against this system have been increasing in Europe, and whereas a short time ago they took the form of isolated private complaints that goods did not always conform to the certified grade, they now take the form of organized protests. I have before me not merely private correspondence running through a number of years, but the recent proceedings of the London Corn Trade Association and the proceedings of a delegate conference held on December 12 at the Berlin bourse, the general tenor of which is that foreign importers are vexed with prevailing conditions in the United

States and are determined to force an improvement. At these two conferences a great many harsh things were said in regard to American certificates, and specific instances of irregularities were mentioned. The vital point, which it will be well to separate from so much context, is this:

Mr. Friedberg (Hamburg) stated: It is perfectly clear that if an American inspector certifies we have no right to doubt, or if we do, we are asked, "Why do you go on buying?" I may assure this meeting that a good many of us are not going on buying. We have none of this trouble in South America. For the general trade I think that there are respectable people enough in America, and I am wondering why they do not stop the glaring abuses that are complained of.

It was the fact that not many years ago the vast bulk of American grain exportations went forward from New York, and that every year standard samples of cereals were sent out to European buyers bearing the seal of the New York commercial bodies, which issued certificates of inspection. Under such circumstances, when European buyers received a certificate from New York stating that a certain cargo afloat was of X quality, they could refer to the sample of this X grain, and there was at least a moral guarantee that sample and cargo would be alike.

VARIANCES AT SHIPPING PORTS.

The practice of sending out standard samples is no longer followed, while grain is being shipped under certificates of inspection from Duluth, New York, Baltimore, New Orleans, Galveston, and probably elsewhere. In each port or place a commercial organization assumes the right to issue certificates of grade, and yet no two ports or places have agreed upon the text of the terms which they use to describe the standard grades, let alone upon the grain itself. Nor is this all. I quote from the printed rules of a great board of trade:

The committee on grain shall have full power and authority to establish grades of grains and to alter and amend the same, as may be deemed necessary or expedient.

This instability is naturally one of the conditions of American business that is least acceptable to foreign importers, and, what with rivalry between ports for export business, it has created not only bitter feeling abroad, but definite differences in the prices at which grain of the same nominal grade is offered for sale at the different ports of shipment. There are "easy ports" and "good ports," and sometimes the "easy ports" are penalized as thus explained in a recent letter from an importer to an officer of an American commercial organization:

As you know, at present importers have great difficulty selling on certificates, but where quality is reasonably assured they are willing to pay a premium over lower inspections. Newport News and Norfolk were excluded on the London and Liverpool contracts because of last year's (1905) No. 2 corn shipments, while, as you know, your inspection maintained a premium all last season over the Atlantic.

No wheat importers desire to pay a premium here, or to exact a penalty there, based upon their appreciation of inspection methods. Wheat will fix its own price readily enough, and what the importer wishes to know, and has a right to know with as much certainty as attaches to any human transaction, is that No. 1 white winter wheat, for example, is the same kind of grain, whether it be inspected at Duluth or New Orleans. The importer insists that if the American Government, commercial bodies, and individual exporters have not agreed upon the qualifications of various grains necessary that they

may receive specific gradings it is the result of their own negligence, very possibly encouraged in certain quarters by those who profit by this unsatisfactory state of affairs.

SIMPLE REMEDY PROPOSED.

The remedy sought is so easy of application, and the demand for its application is so entirely reasonable, that to the importer protracted resistance is incomprehensible. The proper remedy may be applied either by the American Government or by the cooperation of American trade bodies. The starting point of the reform would be, naturally, the establishment of standard descriptions by law. This done, if the Government were charged with the issuance of inspection certificates, the service would be removed from local influences, and the so-called official American certificates would be rehabilitated. If this very rational proposition be objected to, the surest means of effectively combating it would be the holding of a conference of American grain-inspecting bodies for the adoption of grain standards and for the adoption of ways and means of drawing standard samples, to be deposited in American consulates at great European ports, or to be issued upon demand to importers; and to provide for a board of inspectors, the members thereof to be transferred at intervals and liberated from every form of local pressure.

AMERICAN GRAIN CERTIFICATES.

EFFORTS TO BE MADE TO ESTABLISH BETTER METHODS OF INSPECTION.

Consul-General Skinner forwards from Marseille extracts from a report on grain inspection made by M. Lefebvre, a French delegate to the International Reunion organized by the Corn Trade Association of London. The consul writes:

My attention has been called to a report presented to the Syndical Chamber of Grain and Flour at Paris by George Lefebvre, delegate to the International Reunion organized by the London Corn Trade Association. This report has been sent to me by a prominent Marseille miller, and I take it that it stands for the sentiments of the trade in this city, which has not acted upon the subject as yet in an official manner, although at this port the great bulk of American hard wheat exportations are received. The report of M. Lefebvre is quite long, and I translate merely the salient passages, as follows:

I have the honor to render an account of my mission as your representative at the conference of November 8, organized by the London Corn Trade Association, for the purpose of considering final certificates covering grain exportations from America. The conference was attended by not less than 45 members, whose opinions were unanimous as to the necessity of reforming the actual system. Some wished to ameliorate it and others to abolish it. Complaints were made of a detailed nature, which I have no need here to repeat, except as to two cases, which deserve to be set forth.

Complaint was made in regard to the delivery of hard winter wheat, No. 2, in which not only the old and the new crop were mixed, but in which there was to be found also a considerable quantity of seriously damaged wheat. From the American inspectors who delivered the certificates the only answer received was this: "We consider our principal duty is to secure the consumption of our crop." Can caprice proceed to greater lengths?

Corn certified as No. 2, or "sail grade" (the quality capable of supporting a voyage in sailing ships), and which should have been able to endure a long voyage,

arrived in a completely bad condition after a rather short journey. The complaint made was met by the reply that "It is the fault of the buyers who purchase during the months when corn germinates." It seems, then, that it is always the buyer who is wrong, and that neither the seller nor the inspector can assume any responsibility.

AMERICAN INSPECTION SERVICE CONDEMNED.

Mr. Montgomery, of Liverpool, speaking first, declared that the inspection service was badly established in the United States; that the European buyer, renouncing any right of appeal as to quality when an inspector has delivered a certificate, thus constitutes the inspector an arbiter between the seller in America and the receiver in Europe; and yet this inspector may perhaps be incompetent or perhaps lacking in integrity. The abuses concerning which complaints arise from all parts of Europe prove that the buyers must come to an understanding in order to determine the methods by which this business should be handled between America and the Old World. This conference is probably the first effort along these lines between the interested countries.

First of all, what is it that is called an "official" certificate of inspection as to quality? This is a very broad definition. There is not in the trade any definition of the word "official," and in consequence every certificate of an inspector who holds an official position must be accepted by the buyer. To demonstrate to what point this may lead us it has been pretended seriously by a seller in an appeal which was made recently at Liverpool that a certificate of natural weight, written upon a half sheet of letter paper by a person who constituted himself a public officer (surveillant) at Montreal, was an official certificate within the terms of the contract.

THE PROPOSED REMEDY.

The object of our desires is to obtain the grain of which we have need on the lowest possible terms, with reasonable guarantees as to quality and condition. In my opinion we should attempt to obtain the desired ameliorations while deranging as little as possible the methods at present in use. We can, if we unite ourselves, transform the conditions now prevailing. In place of saying in our contracts "Certificate of inspection final as to quality," we might say "Certificate of inspection issued by such institutions as are approved by the Grain Association of ——— at the date of this contract final as to quality." In this manner the commercial associations of Europe could definitely give or refuse their approval to the inspecting institutions of America. Before accepting any American inspecting institution we might assure ourselves of its proper organization, requiring that the inspector named be a man capable and worthy of exercising the functions imposed upon him; that the inspector be remunerated for his services without regard to the fact that he has or has not passed upon grain which may be submitted to him; that the rules which the inspector must follow be not changed without communication of the fact to our associations; that a committee named by the inspection institutions be charged to examine complaints made in a proper manner as to the delivery of certificates of quality, and that a compensation be paid from the inspection funds if the committee finds that the inspector has been at fault.

Our approbation of an American institution's inspection should be good for one year; we should strike out of the list such as give rise to complaints, and in this manner create an emulation between them, and guarantee ourselves against bad deliveries by the fear thus created. We have seen recently the effect produced by rejection of the Norfolk and Newport News inspections. What would happen if we refused the inspections at Galveston or New York? It is quite possible for us, if we agree upon reasonable and moderate conditions, to force the American commercial bodies to give us sufficient guaranties to enable us to obtain the quality of grain that we buy. This is all that we ask.

ENGLISH "QUARTER."

MANY SYSTEMS OF WEIGHT AND MEASURE IN SELLING GRAIN.

In the following article Consul Walter C. Hamm, at Hull, gives some explanation of the English method of buying and selling grain by the "quarter," and the confusion which it often occasions. This classification of agricultural produce has become largely obsolete in America, but it is still regularly in use in England.

The conflict of different "quarters" as units for agricultural sales is incessant in England and misapprehensions occur daily. The original "quarter" is said to have been the "quarter" of an extinct chaldron of 2,016 pounds, but this has never been proved, and all that is known is that no "quarter" used on modern markets is a quarter of a ton. The sales of English wheat at present take place chiefly by the Government "quarter" of 480 pounds and the Mark lane "quarter" of 504 pounds, but the Government allows sales by other than the Government "quarter" on its 190 statute markets, and there are other "quarters" than the 504 pounds one used at Mark lane.

Russian wheat is sold by the "quarter" of 492 pounds where cargoes and "parcels" or medium-sized transactions, ex ship, are concerned; when it is sold "off stands" 496 pounds is usual. American wheat is sold by the "quarter" of 480 pounds, if shipped from the Atlantic, but by the "quarter" of 500 pounds, if shipped from the Pacific seaboard. It is a great pity that agricultural buyers and sellers can not agree to do their business by the cental, or true hundredweight of 100 pounds, but there are many vested interests opposed to full clearness of expression in contracts. The following brief table may save some trouble to American sellers of wheat in England. The first column takes an arbitrary price for 100 pounds, and each succeeding column shows what the cost of a "quarter," when measured by the different standards, would be at that price.

Price per 100 pounds.	Per quarter of 480 pounds.	Per quarter of 496 pounds.	Per quarter of 500 pounds.	Per quarter of 504 pounds.
$1.20	$5.76	$5.95	$6.00	$6.12½
1.26	6.04½	6.24½	6.30	6.35
1.32	6.33½	6.54½	6.60	6.65
1.38	6.62	6.84	6.90	6.95
1.44	6.91	7.14	7.20	7.25½
1.50	7.20	7.44	7.50	7.56
1.56	7.48½	7.73½	7.80	7.86
1.62	7.77½	8.04	8.10	8.16
1.68	8.06	8.33	8.40	8.47

CONFUSION PECULIAR TO THE UNITED KINGDOM.

The perplexities of the "quarter" seem to be enough, but there is also the weight as grown, or natural weight, and this is very important, weight being a great index to quality and the best guide that buyers, not expert critics and judges of samples, have to secure profitable market transactions. It has been suggested that this standard be abolished, but it would destroy all hope of uniformity and increase the difficulty of keeping accounts, which most find too great already. Yet it has been mooted by practical men for a practical reason.

At present let us see what happens in certain concrete cases. A buyer of American oats finds that the "quarter" is of 320 pounds. His knowledge of oats as a cereal tells him that this is excellent natural weight, arguing very fair, though, of course, not the highest quality. But the American oats delivered to him will usually be oats whose natural weight is only 288 to 304 pounds, the deficiency being made up to him. It is the same in one way, but very far from the same in another. The prudent buyer will ask to be told the natural weight

before he buys corn. If he takes this precaution there seems no reason why the simple cereal should not be the basis of the transaction. A sale note would then run: "One thousand centals of American oats, at $1.32 per cental (natural weight, 38 pounds to the bushel)." On such a note 100,000 pounds weight of corn would be delivered, and there could be no confusion.

When the many confusing standards in weights and measures, like the many confusing standards in money, are done away with, and one universal standard of weight and measure is adopted, the loss and embarrassments now felt in commercial transactions will be avoided.

WHEAT AND FLOUR.

AUSTRALIA.

FORTY MILLION BUSHELS ARE AVAILABLE FOR EXPORT.

Consul-General John P. Bray, under date of November 10, 1906, writes as follows concerning Australia's wheat and flour exports:

Exports of wheat and flour from Australia to destinations beyond the Commonwealth from December 1, 1905 (the beginning of the 1905–6 export season) amount approximately to 28,415,088 bushels of wheat and 1,529,841 sacks of flour, together equivalent to 35,758,324 bushels or 957,812 tons of wheat. A comparison with the corresponding period of the two previous seasons is as follows:

	Bushels.	Tons.
1905–6	35,758,324	= 957,812
1904–5	30,607,511	= 819,844
1903–4	37,477,016	= 1,003,848

As compared with last season, the total to date shows an increase of 5,150,813 bushels. A summary of the present season's shipments is as follows:

From—	Wheat.	Flour.	Equivalent in wheat.
	Bushels.	*Sacks.*	*Bushels.*
Victoria	12,369,859	658,427	15,530,308
South Australia	11,767,706	499,615	14,165,858
New South Wales	4,277,523	370,299	6,054,958
Queensland	.....	1,500	7,200
Total	28,415,088	1,529,841	35,758,324

The total of 35,758,324 bushels includes 21,716,063 bushels for Europe, 5,720,981 bushels for South Africa, 885,315 bushels for India and Colombo, 3,607,208 bushels for South America, and 3,828,757 bushels for other destinations. The total surplus available for export beyond the Commonwealth this season, after providing for local requirements, is about 40,000,000 bushels, of which, as shown, about 35,750,000 bushels have already been shipped, leaving about 4,250,000 bushels still available for export.

CROPS IN NEW SOUTH WALES AND QUEENSLAND.

Consul F. W. Goding, of Newcastle, submits the following official estimate of the New South Wales and Queensland wheat harvest:

The total area in New South Wales under wheat the past season increased by 70,000 acres, while the hay area was reduced by 27,000

acres. It is estimated that 2,009,000 acres of wheat were harvested with a yield of not less than 25,000,000 bushels against a yield for 1905 of 20,737,200 bushels, and for 1904 of 16,464,415 bushels.

In Queensland it is estimated that there will be almost an average yield of wheat, and that the crop will amount to at least 750,000 bushels for the present season. If this result is attained, it will give a great stimulus to wheat growing in the Maranoa districts, which many believe are destined to become the chief wheat granary of the State.

GREAT BRITAIN.

AMERICAN FLOUR HURT BY MISBRANDING.

Consul R. W. Austin, of Glasgow, writes that the friends of American flour in Scotland are elated over the passage by Congress of "the food and drugs act of June 30, 1906," and are predicting that with the enforcement of the law mentioned, the American flour will regain its old time reputation and be restored to the head of the list which it occupied in Great Britain prior to 1904. Mr. Austin continues:

At that time no flour—home or foreign—equaled the American article, which had grown in popular favor to such an extent that it had no real competitor.

The American wheat crop of 1904 being short enabled the continental mills to introduce their flour into Scotland, many of them not hesitating to use popular American labels. This scheme was worked successfully for some time to the injury of the American trade, and the excellent reputation of its flour. Finally a vigorous protest under the British "sale of goods act" was made, and this practice of the millers of the continent discontinued. While this afforded relief, American flour is, and has been for several years, seriously injured in Great Britain by its being misbranded or labeled before leaving America, and this unfair method, it is hoped, will be discontinued by an observance of the "food and drug act."

What is known in this country as American hard winter wheat is considered by expert Scotch bakers and users as inferior in value to flour made from hard spring wheat. The difference in price per 380 pounds in America between the two varieties is usually about 35 cents. By branding the winter wheat, for instance, as Minneapolis or spring wheat, an inferior article is placed on this market, and as these two kinds of flour in the dust look identically the same, experts and the general public are deceived. The result is, America's best quality of flour has suffered in reputation and sales have diminished. Many of the Glasgow bakers, discovering that the so-called Minnesota or spring flour neither returns the quantity nor quality of bread expected, condemn all American flour, and hence look to other countries for their supply. To put an end to a practice which is in violation of honorable business methods, let every sack of American flour bear, in large letters, the name of the State and town where it was manufactured.

BRITISH VERSUS AMERICAN FLOUR.

Consul F. W. Mahin writes from Nottingham on the decreased use of American flour in Great Britain. He interviewed one of the wholesale bakers, who formerly bought from $30,000 to $40,000 yearly of

American flour, who now does not buy $500 worth. This Nottingham baker says that he believes the superiority of the British flour is due to the different treatment of the grain in the mills. He believes that British mills as now equipped can and do take American wheat and make better flour from it than American mills do. He admits that the American flour will make more loaves of bread per sack, but adds that he would gain less from this advantage than he would lose in trade by using American flour.

CHINA.

FIRST MILL IN SOUTH CHINA—AMERICA MEETS MORE COMPETITION.

Consul-General Amos P. Wilder, under date of December 11, reports that the new flour mill just completed in Hongkong is the first one in South China. The effect of this new competition for American flour and the various factors entering into this trade are thus described by Mr. Wilder:

In Shanghai there are some five flour mills, with individual capacities running up to 600 barrels a day, in the main owned and operated by Chinese, although one is run by Germans. These use wheat from the Soochow Creek district and even as far as Hankow, some 600 miles. Recently, however, a cargo of 19,000 bags of Tacoma wheat was received by one of these mills. They have been very prosperous for three years past—some of them having been in operation for six years—but during the past year there has been a big shortage in native-grown wheat, and the high rate of exchange at present seriously affects them.

The Hongkong mill is located on Junk Bay, some hours' ride by launch from the center of the city of Victoria (popularly called Hongkong), on the Kowloon (mainland) side. The moving spirit in this project is a Canadian, who for a dozen years has done a very large business in this section for the Portland Milling Company. Some years he has sold nearly 2,000,000 sacks of flour, of 49 pounds each. He was one of the first to introduce the cheaper grades of American flour.

The new mill proposition has been brought to its present status in some eighteen months, and it is understood that by the end of December the product will be on the local market, though there may be delay of a month. A cargo of 5,850 tons of Walla Walla Club wheat secured in Portland, Oreg., arrived December 10. The milling property, land, etc., represent an investment of some $500,000 gold. Apart from the Canadian's controlling interest, among other shareholders are several Hongkong capitalists. The new mill is in two sections, each side having a capacity of 800 barrels per twenty-four hours; it is thus an extensive equipment. A feature of the plant much in evidence from the harbor is an extensive piggery, houses, runs, etc., the idea being to feed pigs on the offal left in the process of flour making. The prospectus stated that fully 20,000 pigs could be thus cared for. It is understood, however, that experiments with this animal on the place have been disappointing, owing to disease. Pork is a favorite flesh among the Chinese, and commands a better price in the markets of South China than does beef.

AMERICAN DIFFICULTIES—FREIGHT RATES.

Flour, kerosene oil, and cotton piece goods are the three leading American exports to this important distributing point, and the millers of California, Washington, and Oregon are looking with keen interest to this possible dislocation of their trade. A number of American companies have long had agents in Hongkong, who have done a very extensive business.

Australian flour has come into this market during the past fifteen months, beginning with the shortage in California and continued by the boycott of American goods and other causes. Within the past twelve months the imports of Australian flour into Hongkong have totaled 800,000 to 1,000,000 sacks, 4 sacks of 49 pounds to a barrel of 196 pounds. The freight rate from Australia to Hongkong is about $3.65 per ton of 2,000 pounds, as against about $4.50 on the same weight from the Pacific coast. Minneapolis flour enjoys a low freight rate—$8 gold per 2,000 pounds from that city to the Orient; but the strong demand for it in Europe, coupled with the inability of the Chinese to detect the excellence of this product, explains why Minnesota is not represented in the Far East. Nor is Dakota wheat, which is of high grade, imported to any extent.

AUSTRALIAN FLOUR RANKS HIGH—SELLING METHODS.

Californian flour ranks in quality above the flour of Oregon and Washington, and commands a higher price here. The Australian flour is ranked as more than equal with the Californian flour, stronger in gluten and about the same in color. Australian flour yields 28 to 30 per cent gluten, as against 23 to 24 per cent in Californian flour. Australian flour sells for about $39 per ton of 2,000 pounds, as against $35 gold for Oregon and Washington—a considerable difference. Higher grade flour is used for bread and cakes, cheaper flour to an extent for vermicelli. Flours vary in price from $4 gold per barrel to $2.50 f. o. b. Pacific coast, for the cheapest, all from the same wheat.

It is understood that the Canadian manager is seeking contracts for his new mill from six or eight large Chinese firms on the basis of $3.40 gold per barrel of 4 sacks. The method of disposing of the output in Hongkong is this: Each Hongkong agent has a comprador who is a clever man of business, and he sells the output to Chinese firms who are in the nature of jobbers. The comprador is under bond, and stands responsible for the credit given to the firms taking the flour. A careful record of the imports of American flour in bags of 49 pounds to Hongkong follows:

For twelve months to—	California.	Oregon and Washington.
July, 1902	2,349,603	3,157,645
July, 1903	2,214,395	3,129,342
July, 1904	2,008,035	2,456,864
July, 1905	1,330,733	2,692,785
July, 1906	687,733	2,632,220

Hongkong is not so extensive a distribution point as formerly, once having included Korea, Newchwang, Vladivostok, Tientsin, Chefoo and its territory. These points, however, are now chiefly served direct. Canton and southern China are reached by the network of

rivers in its neighborhood, and Swatow, Amoy, Foochow, on the coast toward the north, are still markets for Hongkong-received flour.

The freight rate from American ports to Hongkong has been $4.50 per ton on flour. It is understood that the recent shipment of wheat for the new mill enjoyed a rate of $3.50 per ton, and the American millers are actively seeking to correct what seems to them an inequality between the finished flour and the raw material—wheat.

PHILIPPINES.

AUSTRALIAN FLOUR SUCCESS IN THE ISLANDS.

One of the most conspicuous features of Philippine trade has been the increasing trade with Australasia, which is now a formidable competitor of the United States. This result, writes British Consul-General Kenny, is in no small measure due to the energy of the commercial agents of the various colonies who periodically visit the islands and the commendable enterprise of colonial exporters in sending representatives there to bring their produce to the notice of the local buyers. The statistics of the flour trade for the last three years furnish a good example of this:

	1903.	1904.	1905.
United States	$784,976	$699,554	$508,904
Australasia	1,153	35,190	235,558
Other countries	150	68	4,988
Total	786,279	734,812	749,450

Australasia also occupies a prominent position in the coal trade of the islands, two-thirds of the $442,555 Philippine purchases being furnished in 1905, the rest being from Japan.

SPAIN.

PROPOSED INCREASE OF DUTY—HIGH BREAD PRICES.

Consul-General B. H. Ridgely, of Barcelona, advises that the proposed increase in the Spanish import duty on wheat from 8 to 10.50 pesetas gold (peseta = 19.3 cents), and on wheat flour from 14 to 18 pesetas is meeting with strong opposition.

The necessity for protecting home agriculture by imposing an import duty equivalent to about 65 per cent ad valorem on wheat is difficult to understand in view of the good crops harvested during the past year. It is generally supposed that the crops have fallen into the hands of speculators who are responsible for the present movement to raise the duties. Be that as it may, the bakers have already agreed to raise the price of bread in the event of the law in question being approved by the Cortes.

All food stuffs are already dearer in Spain than in any other part of Europe, and the retailers appear to be able to continue increasing their profits with impunity; it therefore seems likely that the public will acquiese in a further increase in the price of bread, although, according to a Barcelona paper, bakers are at present making a net profit of seven pesetas per hundred kilograms (about 0.6 of a cent per pound). When wheat was selling at fifty-two reales ($2.50) per fanega (16 gallons) the price of bread was 40 centimos (7.7 cents) per

kilogram (2¼ pounds); now wheat is selling at 38 reales ($1.83) per fanega, but the cost of the loaf remains the same.

SURTAX ON WHEAT.

Mr. Robert M. Winthrop, American chargé d'affaires, writing from Madrid January 3, reports that the measure providing for a surtax on wheat and wheat flour imported into Spain was adopted by the Cortes December 31, 1906. According to this measure, wheat and flour will be subject to a temporary surtax of 2.50 and 4 pesetas per 100 kilos respectively, as long as the average price of wheat in the regular markets of Castile does not exceed, during a whole month, 25 pesetas per 100 kilos. The surtax is to be paid in gold. The value of a peseta gold is $0.193.

GREECE.

FOREIGN ARTICLE SUPPLEMENTING HOME PRODUCT.

Writing from Athens Consul-General George Horton says that great excitement exists among the millers of Greece over the rapid increase in importation of foreign flour.

Two large mills of Piræus have recently closed down, and others are said to be on the verge of bankruptcy. The millers are demanding of the Government that a heavy duty be levied on foreign flour. Their petition contains the following particulars: Five years ago the flour yearly imported into the Kingdom did not amount to more than 150,000 okes. (One oke equals 2.82 pounds; $1 equals 5.50 drachmas; 100 lepta equals 1 drachma.) In 1905 the amount had grown to 1,500,000 okes. During the first six months of 1906 2,231,000 okes have been imported, and it is thought that the entire year will show an importation of 10,000,000 okes.

Most of this flour is Bulgarian, which can be bought in Piræus for 44.68 lepta the oke, including the existing tax, while the Greek flour costs 46 lepta the oke. Unless a prohibitive duty is laid immediately on foreign flour, the millers claim that their industry will be wiped out of existence, and thousands of laborers—between seven and eight thousand in Piræus alone—deprived of employment.

INCREASED DUTY ON FLOUR.

According to a report by Minister Jackson, of Athens, a bill was introduced into the Greek Chamber of Deputies December 24, 1906, providing for an increase of 1.50 drachma gold per 100 okes, in the conventional rate of duty on wheat flour, making the rate 11 drachmas gold. Under article 28 of the customs law the increased duty went into effect from the date of introduction of the bill. The conventional rate affected by this bill is not a conventional rate resulting from an agreement with a foreign country, but a reduced rate granted voluntarily by Greece to all countries entitled to most-favored-nation treatment. The oke is equivalent to 2.82185 pounds, and the value of a drachma gold is $0.193.

NORWAY.

IMITATION OF AMERICAN OATMEAL.

Consul-General Henry Bordewich reports from Christiania, under date of December 6, 1906, that he has received a letter from a Norwegian importer of American rolled oats, who asserts that certain for-

eign millers are selling rolled oats of their own manufacture in Christiania, in packages bearing labels which are calculated to mislead customers and to make them believe that the goods are made in the United States.

The complainant states that one foreign brand is marketed in sacks stamped with the American flag, and urges the adoption of some means to protect the sale of the American product. The consul-general writes that although rolled oats are now manufactured to a limited extent in Norway, American rolled oats are well received in the market by all classes of people on account of their quality. He advises that American manufacturers may protect their interests by securing trade-marks, the total expense involved being about $18 for a period of ten years. Norway is a party to the International Union, and Americans may readily secure trade-marks in Norway, provided they have obtained registration of the corresponding trade-mark at home.

AMERICAN BREADSTUFFS EXPORTS.

COMPARATIVE RECORDS FOR THE PAST TWO YEARS.

Complementary to the reports from Europe on American derelictions in grain shipments, and other statements on American cereal products in foreign markets, a statistical review of the exports of breadstuffs from the United States for the calendar years 1905 and 1906 is herewith presented, the figures being those of the Bureau of Statistics, Department of Commerce and Labor:

Articles.	1905.		1906.	
	Quantities.	Values.	Quantities.	Values.
Barley ..... bushels..	13,769,219	$6,920,248	14,528,245	$7,363,805
Bread and biscuit ..... pounds..	10,863,737	635,904	11,678,212	670,357
Buckwheat ..... bushels..	582,932	384,095	410,673	261,554
Corn (bushels):				
Exported to—				
United Kingdom	42,749,710	23,177,810	35,666,912	18,019,412
Belgium	6,511,847	3,463,305	4,785,667	2,492,045
France	2,754,152	1,411,422	2,950,267	1,407,886
Germany	22,681,459	12,164,347	18,950,215	9,758,235
Italy	498,250	252,348	216,303	110,529
Netherlands	10,332,218	5,579,163	12,575,169	6,566,127
Other Europe	12,130,294	6,317,295	15,039,311	7,747,260
British North America	9,157,723	4,947,698	7,155,679	3,721,483
Central American States and British Honduras	685,649	472,411	89,431	55,203
Mexico	1,113,405	702,834	1,938,184	1,148,396
Cuba	1,815,424	1,119,841	2,266,232	1,305,073
Other West Indies and Bermuda	494,542	326,400	499,839	295,784
South America	231,558	150,428	21,654	13,327
Other Asia and Oceania	5,328	4,063	118,339	61,928
Africa	100,338	62,414	242,115	135,555
Other countries	4,034	2,547	3,500	2,026
Total	111,265,931	60,154,326	102,518,817	52,840,269
Corn meal ..... barrels..	480,835	1,423,856	682,953	2,096,718
Oats (bushels):				
Exported to—				
United Kingdom	11,744,814	3,974,867	10,652,842	3,895,157
Belgium	1,746,706	579,708	2,777,096	994,208
France	1,913,585	639,285	5,573,498	2,016,702
Germany	5,357,606	1,854,307	1,679,807	588,370
Netherlands	3,172,776	1,089,715	2,428,616	883,206
Other countries	4,886,514	1,822,124	2,368,591	958,478
Total	28,822,001	9,960,006	25,480,450	9,336,121

Articles.	1905.		1906.	
	Quantities.	Values.	Quantities.	Values.
Oatmeal.....pounds..	47,093,867	$1,255,906	46,786,149	$1,188,303
Rye.....bushel..	470,267	304,706	1,073,206	718,208
Rye flour.....barrels..	6,896	27,610	3,413	11,401
Wheat (bushels):				
Exported to—				
United Kingdom	8,927,070	7,106,339	25,354,852	19,357,710
Belgium	1,080,826	908,521	7,800,597	6,104,966
France	2,183,372	1,874,811	3,908,400	3,180,928
Germany	2,578,780	2,200,452	6,755,538	5,271,048
Italy	782,265	689,232	4,612,373	3,829,669
Netherlands	831,910	687,057	6,166,439	4,737,061
Other Europe	380,588	335,756	2,847,284	2,313,775
British North America	81,676	68,950	281,212	218,063
Central American States and British Honduras	31,327	29,356	40,216	33,393
Mexico	920,885	902,305	1,617,566	1,536,587
West Indies and Bermuda	469	513	1,797	1,841
South America	468,980	383,692	457,196	361,543
Asia and Oceania	1,829,622	1,394,543	1,058,093	759,919
British Africa	424,556	356,697	119,987	96,283
All other Africa	216,309	196,734	1,829,354	1,355,800
Other countries			80	64
Total	20,738,635	17,134,957	62,850,984	49,158,650
Wheat flour (barrels):				
Exported to—				
United Kingdom	3,822,636	17,178,953	5,513,808	23,096,735
Belgium	14,321	65,110	13,085	55,899
Germany	145,358	646,782	507,683	2,392,312
Netherlands	656,989	3,188,489	1,212,053	5,635,744
Russia	154,916	758,732	119,319	526,034
Other Europe	362,985	1,810,749	660,248	2,817,252
British North America	157,928	662,148	165,137	664,212
Central American States and British Honduras	461,830	2,064,956	403,189	1,611,844
Mexico	62,094	263,177	29,319	118,443
Cuba	715,075	3,443,048	709,667	2,908,946
Other West Indies and Bermuda	771,269	3,867,326	854,834	3,591,067
Brazil	217,016	1,141,500	281,845	1,292,637
Colombia	126,056	661,286	28,565	128,440
Other South America	580,178	2,595,089	656,620	2,424,855
Chinese Empire	121,390	445,053	541,599	1,846,388
Hongkong	789,732	2,903,884	929,618	3,460,161
Japan	1,660,801	6,014,843	1,000,147	3,390,623
Philippine Islands	36,703	149,368	55,722	207,785
Other Asia and Oceania	311,116	1,210,511	351,560	1,177,966
British Africa	137,669	695,041	174,780	759,903
All other Africa	36,989	194,108	61,026	274,173
Other countries	1,381	6,076	4,276	18,308
Total	11,344,432	49,966,229	14,324,100	58,399,727
Preparations of, for table food		2,232,532		2,144,379
All other, for animal feed:				
Bran, middlings, mill feed.....tons..	69,497	1,371,122	97,287	2,109,912
Dried grains and malt sprouts.....do....	89,424	1,716,216	101,751	1,931,242
Other		812,917		839,037
Total breadstuffs		154,300,630		189,069,690

FARMING AND PRODUCTS.

SUGAR INDUSTRY.

CUBA.

GOOD REPORT FROM WESTERN PART—LACK OF LABOR.

Consul Max J. Baehr, in a report from Cienfuegos, says that the cane fields in that part of Cuba present an appearance of high exuberance, owing to the abundant and opportune rains during the summer months, and the plant has most everywhere reached the highest point of development, although it did not receive the care and cultivation of other years, on account of the late political disturbances. The consul continues:

The cyclone, which did much damage in the provinces of Habana and Pinar del Rio, brought us copious rains, which greatly benefited the fields, and not wind enough to break or uproot the plant. Almost all estates in this district are ready to begin the grinding campaign. In some places the work has already commenced, but most of the estates will not be in full working order before the second week in January. It is generally believed that the fields will give an abundant yield, and that the cane, having reached the highest point of growth and maturity, will yield a high percentage of sugar.

Very little new machinery was put up during last year, and some estates even neglected to repair their old plant, owing to the unsettled conditions during the summer. The problem which so far has not been solved is the scarcity of hands for the crop. The towns and villages are full of unemployed men, but these do not go to the country in search of work and prefer to remain in the cities, in expectation of an appointment on the police force or some other political position. It is believed that the most practical plan will be to seek field hands in Porto Rico, where, with a population of more than a million inhabitants and a sugar production of but 150,000 tons, there is a surplus of men, especially from December to June, after the coffee has been harvested.

ASK FOR PORTO RICO LABORERS.

The Habana Post says that the importation of Porto Rican laborers to Cuba in the present emergency has been asked by the Cuban planters. A commission from the planters' league has called upon Governor Magoon and asked that he immediately take steps to relieve the present labor stringency. The loss last year to the sugar planters because of the scarcity of labor amounted to several hundreds of thousands of dollars, and some believe that the exact figure, if known, would reach a million. If labor is not obtained for the present harvest the damage will, of course, be much greater than last year, because little labor has come in during the past twelve months, while the amount of cane to be harvested has increased thousands of acres.

Following is an approximate estimate (in bags) of the sugar crop of the Cienfuegos district for this season:

	Bags.		Bags.
Caracas	200,000	Santa Rosa	70,000
Andreita	140,000	Cineguita	80,000
Hormiguero	120,000	Lequeito	70,000
San Augustin	120,000	Portugalete	70,000
Preserverancia	130,000	Juragua	70,000
Soledad	80,000	Manuelita	60,000
Dos Hermanas	80,000	San Francisco	50,000
Constancia	100,000	Parque Alto	58,000
Santa Catalina	50,000	San Antonio	55,000
Dos Hermanos	45,000	San Cristobal	20,000
San Lino	50,000	Regla	14,000
Santa Maria	50,000	Carolina	15,000
Santisima Trinidad	60,000		
Pastora	40,000	Total	1,937,000
Aguada	40,000		

This is equal to 276,000 tons, and is an increase of almost 200,000 bags over last year.

EXPERT ESTIMATE OF ISLAND'S SUGAR PRODUCTION.

A further report from Consul Baehr gives an estimate of the amount of sugar to be produced in all Cuba this season by the 183 centrals mentioned, according to the calculations of Joaquin Guma and Federico Mejer, authorities on the subject. They figure that Cuba will bag 1,524,714 tons. This is a tremendous estimate, but the sugar growers throughout the country are straining every nerve to live up to it. From Maysi to San Antonio the machinery rumbles, the machetes flash, and the bullocks strain at the cane carts. Guma and Mejer estimate:

	Number of centrals.	Bags.		Number of centrals.	Bags.
Habana	29	1,587,000	Santa Cruz del Sur	1	80,000
Matanzas	32	1,671,000	Nuevitas	2	170,000
Cardenas	25	1,522,000	Gibara y Puerto Padre	5	1,015,000
Cienfuegos	27	1,962,000	Zaza	2	93,000
Sagua	22	755,000	Trinidad	1	60,000
Caibarien	13	764,000	Central "Jatibonico"	1	80,000
Guantanamo	10	448,000			
Cuba	4	106,000	Total	183	10,673,000
Manzanillo	9	370,000			

RUSSIA.

BEET SUGAR YIELD HEAVIEST ON RECORD.

Consul Alexander Heingartner, of Riga, translates from the official Financial Messenger the following report on the Russian sugar-beet crop for the year 1906:

The crop just harvested can be reckoned, quantitatively, as a good one; in quality, however, it falls below that of the previous year. The total yield, excluding Turkestan, is estimated at about 12,520,000 tons (2,000 pounds each), an increase of over 2,800,000 tons. The crop is a record one, as it exceeds those of the years 1901–2 and 1902–3, viz, 10,800,000 tons and 11,664,000 tons, hitherto reckoned the largest.

All the districts, with the exception of the government of Poltava and a few of the Vistula governments, have to report an increase. The average yield per acre was 8.4 tons, the largest yields hitherto

reported having been 9 and 9.2 tons, respectively, for 1885–86 and 1886–87. The province claiming the largest average was that of Kherson, with 12 tons to the acre.

AUSTRALIA.

BOUNTIES TO SUGAR GROWERS.

Consul-General John P. Bray reports from Melbourne that the amount paid by the Australian government for bounties to the growers of sugar in the commonwealth who employ white labor only is becoming a heavy item of national expenditure. The estimate for 1906 is $1,352,887, as against $720,242 paid in 1905, an increase of $632,645.

MEXICO.

BEET-SUGAR INDUSTRY IN SONORA.

Consul Louis Hostetter reports that beet-sugar raising and the probabilities of establishing a beet-sugar factory in Hermosillo is being widely discussed at the present time by the owners of several large Mexican haciendas.

They claim from experience that the sugar beet raised in Sonora not only contains a larger amount of saccharine, but also that it will yield more beets to the acre than in any place to the south. As there is no sugar factory in the State of Sonora, and as the trade of Hermosillo covers a large area, the factory should be a paying investment. All the sugar consumed now comes from Sinaloa and California. All the imported sugar so far has been the beet sugar, and it is a very superior article to the cane sugar that comes from Sinaloa. This is a fine opportunity for American capital, as certain concessions can be obtained from the Mexican Government and land for the factory from the people of Hermosillo. It is also assured that some of the large ranch owners will take stock in the company, besides rendering every assistance possible to the enterprise.

EUROPEAN PRODUCTION.

CONSIDERABLE DECREASE ESTIMATED FROM BEETS.

Consul-General Richard Guenther reports from Frankfort that, according to the latest investigation, conducted by the International Association for Sugar Statistics the present season's production of beet sugar by European countries is estimated at 6,352,697 metric tons (metric ton=2,204.6 pounds) against 6,663,297 tons for 1905–6. The number of factories and amount produced in the different countries for the season of 1906–7 stand thus:

Country.	Factories in operation.	Tons produced.
Germany	369	2,157,240
Austria-Hungary	205	1,334,100
France	277	731,900
Belgium	82	279,200
Holland	28	176,390
Russia	279	1,450,200
Sweden	19	157,667
Denmark	7	66,000
Total	1,266	6,352,697

The Russian internal revenue administration estimates this season's sugar production in Russia at 76,000,000 pood, and the amount remaining free for exportation at 27,000,000 pood (a pood=36½ English pounds). It is reported that the parties interested in sugar at Kiev will form a sugar trust.

COCOA AND CHOCOLATE.

TRINIDAD.

UNITED STATES TAKING INCREASING QUANTITIES FROM TRINIDAD.

Consul W. W. Handley writes from Trinidad that the rise in the price of cocoa is stimulating interest in cocoa plantations in that West Indian island. He continues:

Nearly half the people of means in the community are either owners or mortgagees of cocoa estates, and with very few exceptions all the estates are owned in the island. English investors have held aloof from Trinidad since the losses in sugar estates. During the last ten or fifteen years, however, some of the large English insurance companies have turned their attention to Trinidad cocoa. There is now invested by these companies on mortgage more than $1,000,000, at rates varying between 5 and 6 per cent. The investment in almost all cases carries with it a certain amount of life-insurance policies, but there is little or no investment in the purchase and ownership of cocoa estates, except to this limited extent.

COST OF PRODUCTION.

It may be of interest to give the figures of the working of a cocoa estate and some idea of the income produced. An estate is generally spoken of as giving so many bags, a bag being a sack of 1½ hundredweight, so that when the expression "a thousand-bag estate" is used it means an estate giving 1,500 hundredweight. The cost of production on a well-managed estate should not exceed $8 per bag. This figure is necessarily affected by varying conditions, as proximity to railroads or the sea, easy accessibility by roads, or the reverse. On some estates the cost is more, on others it is less, but $8 may be taken as the average cost of production. The selling price of cocoa is just at present much higher than it has been for many years, and in the opinion of those best qualified to judge it is likely to reach a price considerably higher, the reason being that the production is not by any means keeping pace with the increasing consumption; and in view of the present boom in rubber, planters in tropical countries are now planting rubber on considerable land which would otherwise have been planted in cocoa.

Cocoa is selling in Port of Spain at $27 a bag, which leaves a profit to the planter of $19, or more than twice the cost of production. Nearly half of the Trinidad crop is now bought in the United States, where the increase in the consumption has been great. Ten years ago Trinidad's export of cocoa amounted to 209,659 hundredweight, valued at $2,170,276. The exports of 1905 reached 432,268 hundredweight, amounting to $5,742,960. If the United States continues to increase its purchases as it has the last three years, within five years it will take nearly the whole crop.

SWITZERLAND.

LARGE PRODUCTION AND PER CAPITA CONSUMPTION.

Consul R. E. Mansfield, of Lucerne, reports that Switzerland produces more chocolate than all other countries combined, and the Swiss consume more of the article in proportion to the population than any people in the world.

The annual consumption amounts to $2,500,000, and the exports to nearly $6,000,000. The yearly exports to the United States are about $1,000,000, while England takes over $2,000,000 worth. There are more than a score of concerns in the confederation engaged in the manufacture of chocolate, and there are employed in the various factories about 16,000 persons, many of whom are women. The industry is not limited to special localities, as there are many factories distributed throughout the various cantons, some of which employ as many as 2,500 persons and are equipped with the most modern and latest improved machinery.

The raw material forming the principal ingredient, cocoa, is imported from Brazil, Ecuador, and Ceylon. The cocoa after passing through a system of heating until it is thoroughly dried is ground after the manner of preparing coffee. The ground cocoa is placed in mixing machines, where it is pulverized and worked into a doughy consistency, when it passes into other machines where there are added milk, sugar, and other ingredients. The product is then worked in the machines for sixty hours. Ovens for heating and cold-air ducts for cooling quickly are employed as a means of preserving the flavor. It is finally worked into the desired form and shapes by pressing it into molds, after which it passes to the packing rooms, where each piece is wrapped in tin foil and labeled. There is apparently no attempt at secrecy in its manufacture, except in the process of flavoring. About 30 per cent of cocoa is used in the average grade of chocolate.

TURKEY.

LARGE IMPORTS—TRADE REQUIREMENTS.

Consul E. L. Harris, of Smyrna, furnishes interesting facts in regard to the importation of chocolate into Turkey and the uses to which it is put. He writes:

The average importation of chocolate for the Smyrna market alone is estimated at $25,000 and about $15,000 for the other portions of this consular district. Practically no chocolate is manufactured in Smyrna, it being all imported, chiefly from Holland, Switzerland, France, Germany, and England, with a cheap variety from Italy. In price it ranges from 13 to 26 cents per pound, according to quality, c. i. f. Smyrna, including packing. The largest trade done in chocolates is in plain chocolate, which is imported each piece separately wrapped in tin foil, enveloped in paper, having on the outside an artistic picture. Each piece should weigh gross 3.5 ounces or 0.35 ounce. Cream chocolates are imported in small wooden boxes containing 72 pieces, each piece wrapped separately in colored tin foil and weighing about 45 to the pound. The kinds most sold by confectioners are those costing about 25 to 40 cents per box, c. i. f. Smyrna. Small

sticks of plain chocolate are also largely sold, each piece wrapped in colored tin foil and packed in cartons of 100. Each piece should weigh about a quarter of an ounce. Confectioners state that there is a good market for chocolate made up in fancy designs. Powdered chocolate is seldom imported. Small quantities of powdered cocoa are imported in tins, chiefly from Holland.

PEPPERMINT OIL AND CRYSTALS.

CROP AND PRICES IN JAPAN—AMERICAN PRODUCTION.

Information having been requested by American firms concerning the yield of peppermint oil and menthol crystals from the peppermint plant in Japan, America's chief source of foreign supply, the following consular reports will be of interest:

Vice Consul-General E. G. Babbitt, of Yokohama, reports that menthol crystals and oil of peppermint are distilled from the peppermint plant, which is principally grown in Hokkaido, Yamagataken, Okayamaken, and Shiroshinoken, and the two products are so closely associated that, although prices are quoted separately, none of the manufacturers care to sell one line alone, buyers being required to take equal quantities of oil and menthol. There are three principal manufacturers in the Yokohama district. [Labels showing the different brands of these makers will be loaned to interested parties by the Bureau of Manufactures.] One of the brands is considered the best and is well known in America and Europe, though there is little, if any, difference between his goods and those of the other makers. These goods are considered very pure, containing no foreign matter.

Both oil and menthol are usually packed in tins containing 5 pounds, 12 tins to a case, making 60 net pounds to the case. This method is followed for shipments to America and Europe; shipments to India are in bottles. The price governs somewhat the size of each succeeding planting and the yield in the United States, where the best is produced, governs the price of the Japanese article to some extent.

The smallest quantity manufactured was in 1901, viz, about 50,000 kin (kin, 1⅓ pounds) of each article. The price in 1902 was the highest ever recorded, the oil being quoted at 10 yen (yen, 49.8 cents) and menthol at 16 yen per kin. The lowest quotation was in 1898, with oil at 1.25 yen and menthol at 3 yen per kin. The present quotation for menthol is 5 yen, and for oil 3.50 yen per kin. The new crop is estimated at between 85,000 and 125,000 kin each; it will be available in March and April, 1907. The goods are shipped principally to New York, Hamburg, and London, Bombay and Hongkong also securing a fair share of the products.

The following statistics show the exports of both oil and menthol from Yokohama, Osaka and Kobe to various countries. The prices stated in the statistics are in United States currency, while the weight is in kins, a kin being equal approximately to 1⅓ pounds.

Country.	Menthol crystals.				Peppermint oil.			
	1904.		1905.		1904.		1905.	
	Kin.	Value.	Kin.	Value.	Kin.	Value.	Kin.	Value.
United States	47,789	$163,392	30,656	$74,782	24,490	$37,053	18,536	$26,730
Australia	408	1,762	298	931	684	1,345	313	574
British America	678	3,061	270	656	9,091	13,725	3,833	5,760
British India	5,842	31,977	6,578	21,235	1,530	2,866	2,104	3,317
France	13,980	70,538	27,057	64,496	17,850	30,163	7,725	10,429
Germany	19,400	79,748	24,417	56,324	25,816	47,699	37,868	54,467
United Kingdom	33,686	114,843	63,949	150,785	40,540	61,369	58,370	78,292
China and Hongkong	21,882	78,387	13,476	29,596	54,543	84,794	45,101	65,143
Other countries	483	1,663	366	1,007	225	460	56	108
Total	144,148	545,371	167,067	398,812	174,769	279,474	173,906	244,820

The exports of menthol crystals from Yokohama alone to all countries for the ten months ending October 31, 1906, amounted to 45,910 kin, valued at $122,993, against 102,322 kin, with a value of $239,954, for the first ten months of 1905.

The shipments from Yokohama alone of peppermint oil for the ten months ending October 31, 1906, were 47,409 kin, valued at $70,016, also a decrease from the same period of 1905, which showed shipments of 76,213 kin, of a value of $100,234.

GROWTH OF PLANT AND OIL EXTRACTION.

Consul Hunter Sharp, writing from Kobe, states that the peppermint plant grows about 3 feet high, and is propagated from roots which are planted at the end of November and early in December.

About 75 per cent of the entire crop of mint in Japan is grown in the Kobe consular district, namely in Bizen, Bitchu, and Bingo, where the crop is cut three times a year—first in July, second in August and early September, and third in September and early October. There are two other localities where this product is grown—Uzen (in the northeast) and vicinity, and Hokkaido (in the north). In Uzen there are two cuttings—in August and September; and in Hokkadio only one—in October and early November.

The plant requires a dry, light soil, and if too much rain falls during the months of June, July, August, and September the crop is spoiled. The third crop produces the largest percentage of oil. The quantity of the product required to make 1 kin (1⅓ pounds) is: First crop, 141 pounds; second crop, 83 to 108 pounds, and third crop, 83 to 91 pounds. On 1 acre the first crop will yield 4 pounds of oil; the second 8 pounds, and the third 10⅔ pounds.

The oil from the first crop will yield 45 per cent menthol, the second 47½ per cent, and the third 50 per cent. Crude oil is obtained in rather a primitive way by the growers by heating and pressing the leaves in a large barrel. Menthol is produced from the crude oil in factories by a process of freezing. The farmers calculate that when the price of oil falls below $1.99 per kin it pays them better to put their land in grain.

An average crop of oil is about 333,333 pounds; but owing to the very low prices prevailing during the last two years, mint growers planted very sparingly in 1906, and the crop was estimated at 160,000 pounds, but rainy weather in September diminished it to about 106,666

pounds. [An estimate by districts, furnished by the consul, shows a crop of 189,333 pounds for 1906, against crops for 1905 and 1904 of 455,999 and 760,000 pounds, respectively.] The exports from Japan of the products have been:

Year.	Menthol.		Peppermint oil.		Total value.
	Pounds.	Value.	Pounds.	Value.	
1902	72,443	$231,072	78,986	$82,170	$313,242
1903	102,468	400,392	102,698	138,444	538,836
1904	192,197	543,318	219,691	273,402	816,720
1905	222,756	397,404	231,875	245,016	642,420
1906 (up to July)	77,364	151,392	113,761	115,536	266,928

The prices of menthol and peppermint oil fluctuate considerably. Since January, 1903, the highest price for menthol, $8.72 per kin (1⅓ pounds), was reached in August and September of that year, and the lowest $1.89 in the spring of 1905. For peppermint oil the highest was $3.24 per kin in February, 1903, and the lowest, $1 was quoted in November, 1905. The prices in November, 1906, of menthol and peppermint oil are $2.49 and $1.99, respectively. [Samples of mint plant, marked exhibit "A," dementholized oil, exhibit "B," and menthol crystals, exhibit "C," are available for inspection at the Bureau of Manufactures by those interested.]

AMERICAN IMPORTS AND EXPORTS—HOME CROP.

The importation of peppermint oil into the United States for the fiscal year ending June 30, 1906, according to figures supplied by the Bureau of Statistics, amounted to 29,207 pounds, valued at $34,726. For the quarter ending September 30, 1906, the imports were 8,606 pounds with a value of $11,279. Menthol crystals, previous to June 30, 1906, were not listed separately, but were included among chemicals. For the quarter ending September 30, 1906, however, the importations of menthol crystals amounted to $11,919. The duty on the crystals is 25 per cent ad valorem, while the duty on peppermint oil is 50 cents per pound.

The American exports of peppermint oil were 42,939 pounds, valued at $124,728 for the fiscal year 1904; 36,953 pounds, valued at $135,060 for 1905, and 74,151 pounds, valued at $206,261 in 1906. Germany has been the leading customer taking in 1904 $65,505 and in 1906, $35,000 worth; Great Britain's purchases were $31,798 and $26,000, respectively.

According to a statement supplied by the Department of Agriculture, the only figures at present available in connection with the American peppermint-oil production of the past two years are those contained in the reports of Schimmel & Co. According to this authority the area under peppermint cultivation in the United States in 1905 was as follows: New York, 933 acres; Michigan, 7,375 acres; Indiana, 1,000 acres; representing a total production of about 240,000 pounds of oil.

The year 1906 was a very unfavorable one for the peppermint plantations in this country, the severe cold weather of spring killing out many plants, and a falling off in the production of peppermint oil was predicted. About the end of July, 1906, it was estimated by

Schimmel & Co. that the oil output would be about as follows: Wayne County, N. Y. (including remainder of 1905), about 17,800 pounds; Michigan, about 92,000 pounds; Indiana, about 12,500 pounds; a total of 122,300 pounds, as against 240,000 pounds in 1905; but later advices placed the estimate at from 175,000 to 200,000 pounds.

RUBBER INDUSTRY.

GERMANY.

REVIEW OF THE TRADE—EXTENT OF IMPORTS AND EXPORTS.

Consul Jay White, of Hanover, furnishes an interesting and comprehensive report on India rubber and gutta-percha compiled from German official statistics, from which the following is taken:

The German export in India rubber goods has shown during the past few years a development unequaled by that of any other manufacturing branch in this country. This progress is more astonishing when the increase in all exports and imports is compared with that in this particular industry. The following table gives, in tons and dollars, as well as per cent of the total trade, the German imports and exports of all raw materials and manufactured goods, from 1897 to 1905, inclusive.

Year.	Raw materials.			Manufactured goods.		
	Tons.	Value.	Per cent of whole.	Tons.	Value.	Per cent of whole.
IMPORTS.						
1897	30,711,600	$199,800,000	43.2	1,925,400	$258,537,000	19.8
1898	32,077,700	534,875,000	41.3	2,060,200	241,697,000	18.7
1899	34,635,000	620,704,000	45.1	2,164,000	273,233,000	19.8
1900	36,255,100	667,426,000	46.4	2,209,200	285,630,000	19.8
1901	31,038,100	585,421,000	43.1	2,104,800	281,960,000	18.6
1902	32,891,500	609,437,000	44.1	2,063,100	262,558,000	19.0
1903	36,199,000	676,778,000	45.0	2,151,200	287,608,000	19.1
1904	38,424,100	756,673,000	46.4	2,224,400	290,444,000	17.8
1905	42,251,000	823,112,000	46.5	2,317,000	316,187,000	17.9
EXPORTS.						
1897	23,229,000	194,012,000	21.5	2,265,300	548,682,000	60.9
1898	25,121,600	203,887,000	21.4	2,459,700	570,510,000	59.7
1899	25,299,700	241,941,000	23.3	2,605,200	645,739,000	62.1
1900	27,261,100	265,338,000	23.4	2,760,900	710,091,000	62.7
1901	26,958,400	258,765,000	24.1	2,774,200	688,684,000	64.1
1902	29,246,900	276,904,000	24.1	3,115,300	735,471,000	64.2
1903	31,921,400	291,277,000	23.8	3,423,000	781,266,000	64.0
1904	32,675,400	299,278,000	23.6	3,361,800	819,531,000	64.8
1905	34,296,500	333,493,000	24.0	3,702,700	910,377,000	65.4

The table shows an unbroken increase of the imports and exports of raw materials and in manufactured goods, the imports of raw materials having risen in the nine years for which the figures are given 64.6 per cent and the exports 71.8 per cent. The importations of manufactured wares have increased 37.4 per cent and the exports of these last 66 per cent. The imports of raw materials and the exports of manufactured goods have about kept pace with each other. The increase in exports of raw materials is about double that of the imports of manufactured goods.

MOVEMENT OF RAW MATERIALS.

The exports and imports in the last eight years of the raw materials, India rubber and gutta-percha, are as follows:

Year.	Imports.		Exports.	
	Value.	Per cent of total.	Value.	Per cent of total.
1898	$12,971,000	1.0	$2,428,000	0.3
1899	18,255,000	1.3	5,783,000	.6
1900	17,564,000	1.2	5,117,000	.5
1901	11,472,000	.8	3,237,000	.3
1902	14,494,000	1.0	3,856,000	.3
1903	19,135,000	1.3	4,355,000	.4
1904	25,571,000	1.6	4,879,000	.4
1905	33,881,000	1.9	9,282,000	.7

This is an increase of imports in seven years of 90 per cent and of exports of 133 per cent. In the last four years imports have increased from 15,029 tons, with a total value of 60,935,000 marks ($14,500,000), in 1902, to 21,393 tons, worth 142,294,000 marks ($33,800,000), in 1905—that is, 133 per cent; the exports from 6,236 tons, worth 16,188,000 marks ($3,855,600) in 1902, to 7,851 tons, having a total value of 39,038,000 marks ($9,282,000) in 1905; that is, 141 per cent.

PRINCIPAL EXPORTING COUNTRIES.

The following table shows the imports into Germany in the last four years of raw materials from the countries named:

Country.	1902.		1903.		1904.		1905.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.
Great Britain	3,434	$4,464,300	3,858	$5,758,810	3,827	$6,778,500	4,717	$8,961,400
Brazil	1,007	1,544,800	1,756	3,189,300	2,050	4,446,700	2,196	5,182,400
Kongo Free State	1,236	1,618,100	1,244	1,955,200	1,437	2,666,700	1,304	2,513,800
British Malacca	1,346	1,442,100	1,374	1,831,700	1,302	2,029,800	1,187	1,911,900
Kamerun and Togo	320	342,720	105	529,500	599	970,240	1,009	1,748,600
British India	547	580,500	672	887,300	914	1,520,800	834	1,515,000
British West Africa	401	429,300	252	318,300	474	677,140	936	1,425,600
France	465	257,900	741	481,400	1,016	786,400	1,490	1,262,900

INFLUENCE OF COMMERCIAL TREATIES.

An interesting comparison can be made by referring to the annexed table, showing the increase in exportation of raw materials in trade with those countries with which Germany has treaties concerning customs duties. It must be noted, however, that the entire German export trade with the treaty countries has risen from 1,582.9 million marks ($376,681,000) in 1900 to 1,923.1 million marks ($457,681,000) in 1905, while the exports to the "most-favored" countries has grown in the same period from 2,983.8 million marks ($710,428,500) to 3,642.6 million marks ($867,285,700). Exports to treaty countries are shown in the following table:

Country.	1900.	1901.	1902.	1903.	1904.	1905.
Russia	$357,000	$666,400	$856,800	$1,594,600	$1,261,400	$2,570,400
Austria-Hungary	380,800	476,000	380,800	476,000	690,200	856,800
Belgium	595,000	523,600	305,400	428,400	499,800	452,200

The exports to the "most-favored" countries were as follows:

Country.	1900.	1901.	1902.	1903.	1904.	1905.
America	$2,879,800	$999,600	$1,499,400	$975,800	$761,600	$2,261,000
Great Britain	4,212,600	3,736,600	4,474,400	5,759,600	6,783,000	8,948,800
France	666,400	238,000	261,800	476,000	785,400	1,261,400
Denmark				47,600	309,400	285,600
Sweden	47,600	95,200	47,600	466,600	261,800	404,600

With exception of the exports to Belgium and America, there is a sensible increase, subject to but slight irregularities, which shows that tariff treaties exert a constant development. The imports of manufactured articles, compared with the entire industrial commerce, show only a modest growth in the imports, but a considerable increase in the exports.

EXPORT OF MANUFACTURED GOODS.

The exportation of manufactured goods in the years 1902–1905 increased in weight 2,347 tons, or 45 per cent, and in value 23,867,000 marks ($5,682,643), or 72.2 per cent. The exports, however, formed in 1905 instead of only 1 per cent of the total exports as in 1902, 1.48 per cent, or nearly 50 per cent increase in the relative proportion.

The increase in the export of heavy soft rubber goods in the last eight years shows in value 2½ million marks ($595,000), although in relative value it has sunk from 0.6 to 0.4 per cent.

Great Britain, the greatest importing country, took of German india-rubber goods in the last four years the following amounts: In 1902, 1,190 tons, valued at $1,708,809; in 1903, 1,522 tons, valued at $2,455,237; in 1904, 1,564 tons, valued at $2,608,333; in 1905, 1,763 tons, valued at $2,905,137.

This indicates an increase in weight of 573 tons, or 48.1 per cent, and in value of 5,005,000 marks or $1,198,809; being 69.5 per cent. The greatest increase was in heavy soft rubber goods with 100.4 per cent, followed by hard rubber wares with 75.4 per cent and hose driving, belts, etc., with 55.1 per cent.

EXPORTS TO UNITED STATES.

The United States form a considerable factor in German rubber exportation, only in rubber threads, plates, hard rubber goods, and automobile tires. America received from Germany in the last four years, in these branches, as follows:

Threads, plates, etc.: In 1902, 116 tons, valued at $131,428; in 1903, 132 tons, valued at $184,050; in 1904, 101 tons, valued at $151,900; in 1905, 126 tons, valued at $240,700.

Hard goods: In 1902, 72 tons, valued at $137,619; in 1903, 81 tons, valued at $165,237; in 1904, 79 tons, valued at $163,090; in 1905, 87 tons, valued at $181,428.

There is here a quantitative increase of 81 tons, or 74.3 per cent, and an increase in value of 883,000 marks ($210,150), or 95.6 per cent, principally to the credit of hard rubber goods, the exportation of which rose 157.2 per cent; that of rubber threads, 21.2 per cent.

PRODUCTION REVIEW.

VARIOUS SOURCES OF SUPPLY IN 1906—PROFITABLE RETURNS.

The rubber production of the world was summarized recently at the meeting of the Brazilian rubber trust. The chairman stated:

The world's rubber production for 1906 is estimated to amount to 70,000 tons, of which quantity 60 per cent, or 42,000 tons, is the anticipated output of South America. Of these 42,000 tons, Brazil will provide 35,000 tons or more, or 50 per cent of the whole world's production, the value of the Brazilian output being, roughly, £17,000,000 ($82,730,000). Nearly the whole of the 42,000 tons from South America is natural grown rubber, and nearly the whole of the 35,000 tons is the produce of the Amazon and its tributaries. This production is absolutely essential to the manufacturing industry, for, notwithstanding occasional temporarily lower prices, there is no question that the demand is increasing at a ratio in excess of that of the supply. All the plantation rubber will be required, and more than can be grown. At present the output of plantation rubber is about 1,000 tons per annum, or about 1½ per cent of the whole, while Brazil provides 50 per cent of the whole. The two productions can not be compared. Even when and if in the course of time the production of cultivated rubber reaches 20,000 tons, it is improbable that the price will be affected in any really appreciable manner. The value of plantation rubber is leveling down to that of fine Para, the relative prices being about $1.22 for Brazilian, fine Para, $1.32 or $1.34 for good grade plantation Para. A year ago there was a difference of from 20 to 25 cents. More manufacturers seem to be preferring plantation rubber in block form rather than in biscuit or sheet form, as there is less risk of deterioration.

BRAZIL'S COFFEE CROP.

IMMENSE SHIPMENTS GOING FORWARD—VALORIZATION PROGRESS.

Consul-General G. E. Anderson writes from Rio de Janeiro that it is impossible to fix any definite figures for Brazil's monster coffee crop at present.

Not only is the full extent of the increase over previous years uncertain in general, but there is even some uncertainty as to the amount of coffee actually in movement. There has been considerable holding back of the crop for a number of reasons. In the first place, there has been continued complaint that storage room is lacking in Santos, and for that reason shipments to the coast have not been as large as they might have been. There has also been a dispute between planters and commission men as to who is to pay the tax imposed by the Government as the basis for the loan for the valorization scheme. The only crop the present can be compared with is that of 1901, and inasmuch as railroad facilities have improved since that crop was gathered, entries to date ought to be larger comparatively than for the same date in that year. It is unquestionably a fact, however, that considerable coffee is being held from the market at present. Entries for

the crop up to November 9 at Rio de Janeiro and Santos reached 8,683,421 bags as compared with 6,302,485 bags at the corresponding date last year. On the basis of comparative entries to November 9 this year and last, the Brazilian Review estimates that the year's crop in bags should be

At Rio de Janeiro	3,681,924
At Santos	10,439,413
At other ports	700,000
Total probable entries	14,821,337

It is a notable fact, however, that estimates of the crop in this publication have increased from week to week. They are far below those of other reliable publications, and as a matter of fact all of them are largely guesswork. In the meanwhile shipments of coffee from Rio de Janeiro and Santos have been unprecedented. During the single week ending November 9, 658,437 bags of coffee, valued at $6,551,000 f. o. b. Brazilian port, were shipped from the ports of Rio de Janeiro and Santos alone. Shipments of the crop to November 9 from these two ports are valued at $63,913,855, or $11,902,450 more than for the same period last year. At this rate Brazil's coffee exports this year will be valued at about $125,000,000, as compared with $110,000,000 last year.

OLIVE OIL.

SPAIN.

COUNTRY CAN BARELY SUPPLY THE LOCAL NEEDS.

Consul D. R. Birch, of Malaga, reports that no Spanish olive oil will find its way into the American market during 1907.

The present crop, now being pressed, is so small that very little oil, if any, will be available for exportation. There are no statistics on the subject, and thus accurate figures can not be given, but local exporters say the yield will be barely sufficient for home consumption.

The cause of the poorness of the crop was a long drought, followed by untimely rains, the heavy thunderstorms of last September being responsible for the loss of a large portion of the fruit. These conditions mark the low limit of production for Spanish oil in this section. Not during the past twenty years has such an unfavorable situation confronted the Malaga growers and exporters. The crop of the previous season was also exceedingly short, but of sufficient size to warrant some shipments at high figures.

An idea of the extent to which the industry has been paralyzed may be gathered from consular invoice figures. The crop of 1902 made sales to the United States alone of 24,517 barrels, while but one shipment of 75 barrels went out during the past year. This was of the quality known as "manufacturing" or "machinery" olive oil, as the better quality for edible purposes is not shipped from Malaga.

FRUIT INDUSTRY.

BRAZIL.

FREIGHT FACILITIES POOR—APPLES SHIPPED TO BRAZIL VIA EUROPE.

The demand for American fruit in Brazilian cities is shown in a report from Consul-General G. E. Anderson.

Small shipments of apples have been arriving at Rio de Janeiro from the United States by way of Europe, notwithstanding the circuitous transportation, repeated handling, and an import duty and other port charges of 1.6 cents gold per pound. This illustrates forcibly the disadvantage the United States has had in its efforts to secure Brazilian trade by reason of poor freight connections. The direct ships between Brazil and the United States are old freighters, practically none of which can carry cold-storage freight.

Such American fruits as apples, pears, etc., would be in good demand in the Brazilian market if it were practicable to secure direct shipments. Some cargoes of ice from Canada and New England are annually imported at Rio de Janeiro, which are accompanied by fair-sized cargoes of apples. These always meet with immediate sale at profitable prices. The fresh fruit imports of Brazil are constantly increasing. In 1903 the value was $690,841; in 1904, $771,434, and in 1905, $1,109,710. Spain and Portugal sent Malaga grapes, figs, apples, plums, etc., which comprise two-thirds of the whole. The share of the United States increased from $21,264 in 1903 to $33,539 in 1905. Brazil, on the other hand, sent to the United States fruits and nuts to the value of $456,508 in 1904 and $500,727 in 1905. The bulk of these shipments, however, was of nuts.

ITALY.

MESSINA LEMON TRADE DECLINING.

Consul C. M. Caughy, writing from Messina, says that the most optimistic Sicilian can not fail to realize that his country's fruit trade with America has dwindled to practically nothing, the supply being furnished from the lemon and orange groves of California and Florida.

For several years there have been considerable shipments of Messina fruit to Manila via Bombay and Hongkong, but as a shipper remarked recently, "California is ruining the East for us also." Attention has been directed to the markets of Russia, but the prospects are by no means alluring, the enormous duty of 4 rubles ($3.08) per box imposed in that country being detrimental to a large export trade, the lemon in that country being regarded as a luxury in which the poorer classes can not indulge.

ALGERIA.

MARKET FOR AMERICAN PRODUCT—HEAVY EXPORTS.

Consul James Johnston, of Algiers, writes that Algeria imports from Spain over $200,000 worth of fruit, of which apples and pears form a large proportion, which trade he thinks is worth the attention of American exporters.

The great superiority of the American product ought to more than compensate the difference in freight. The only American fruits reaching Algeria in any noticeable quantity appear to be California dried apricots, but as they all come from France, there are no available statistics as to the quantity or the value. [The leading Algerian dealers in fruit and their specialties are named by the consul, and the list can be furnished by the Bureau of Manufactures.]

The fruit exports of Algeria consist principally of figs, dates, grapes, oranges, and similar fruits, and carobs or locust beans. The total amount of the exportation in 1905 was a little over $2,000,000, of which the chief items were: Figs, $560,000; dates, $375,000; grapes, $360,000; oranges, $280,000, and carobs, $200,000. The rest of the exports are composed of the large quantity of fruit sent by parcel post without any special designation as to kind; and of a smaller amount of other fruits, mostly almonds and bananas. By far the greater portion of these go to France, whence they are no doubt reexported to a considerable extent. Austria, however, takes directly about $150,000 worth of figs for the manufacture of fig coffee, which in that country seems to have supplanted chicory as an adjuvant to coffee.

CANNED GOODS TRADE.

AFRICA.

THE PORTUGUESE COLONY MARKET.

American consular officers have furnished some further information in regard to the preserved-meat trade of the United States in foreign countries. Consul W. Stanley Hollis, at Lourenço Marquez, states that the customs statistics for Portuguese East Africa show favorable increases in imports.

The imports of preserved meats at Lourenço Marquez, both tinned and dried, for 1903 aggregated 4,722,494 pounds, valued at $540,305. The share of the United States was 3,885,040 pounds, valued at $409,419. England was the only other country furnishing considerable quantities. The imports of 1904 showed an increase, while those of 1905 showed a still further advance. In 1906 a smaller quantity of American canned and preserved meats was imported, the decrease being due to the derogatory articles concerning Chicago packing houses which have appeared in periodicals and have been read all over South Africa.

Nearly all of the large Chicago packing houses have had representatives in this part of Africa, and every American desiring a share in this trade—which will revive as the transient prejudice in respect to American goods dies away—should send travelers to South Africa for personal interviews with every importer of canned goods in the country. [The principal importers of canned meat in Lourenço Marquez, Barberton, and Pretoria are named by the consul, the addresses being indexed at the Bureau of Manufactures.] As fresh meat can only be obtained in the seaports and large inland towns where there are either cold storage or butchering facilities, there will always be a large demand for canned meats in Africa, especially in the outlying districts.

CURED FISH IN CAPE COLONY.

Consul-General Julius G. Lay writes from Cape Town relative to the trade in South Africa for dried, salted, pickled, and canned fish:

In interviewing the merchants of Cape Town it is found that there is a very limited demand for these lines, with the exception of salmon, in which there is a very large trade. Salt ling, a cod-like fish, is said to command a fair sale. It is stated that although several firms in Cape Town have at various times endeavored to create a sale for fish cured locally none have succeeded, probably because fresh fish is so cheap. [A list of Cape Town firms who would probably be interested in the sale of cured fish is on file at the Bureau of Manufactures.]

FRANCE.

LARGE IMPORTS FOR SHIPMENT TO COLONIES.

Consul A. Gaulin writes from Havre that there is only a limited market for American meat products in France:

In the case of canned meats imported into France, however, the United States has made a relatively good showing. The total imports for 1904 were 2,278,795 pounds, of which the United States furnished 1,210,582 pounds. The imports for 1905 were 2,488,334 pounds, of which the United States furnished about the same proportion as the previous year. It may be noted, however, that only about one-fourth of the French imports of canned meats has been for home consumption, the balance being intended for French colonies, goods in transit being included in the import statistics. American exporters of meat products should carefully study the French colonial field, for that is a promising market, and for them the real French market. France enacted a law prohibiting the purchase of foreign foodstuffs and food products as army supplies. This law, however, does not apply to the colonies. France exported 4,904,000 pounds of canned meats in 1905 50 per cent of which went to her colonial possessions, especially French Guiana and Algeria.

Although American meat products have lately been under a cloud, no permanent injury seems to have been done. Subsequent revelations as to packing plants in other countries and comparisons and recent American legislation have helped to restore confidence. Of the 631,320 pounds of meat extracts imported by France in 1904, only 8,073 pounds came from the United States.

GREAT BRITAIN.

TRADE REVIVAL MUST START FROM GROUND FLOOR.

Consul Alfred K. Moe indicates stagnation in the canned-goods trade in Ireland in the following report from Dublin:

Canned products have had a very fair market in Ireland, fruits and gherkins and vegetable and other preparations commanding a steady sale, but latterly a revulsion of taste has set in and canned meats especially are in disfavor, particularly those from the United States. In the recovery of the Irish markets it is utterly useless for American packing firms to send expensive catalogues and literature setting forth the beauty of can or bottle labels. The people are now concerned with what is inside and the character of the packing establishment

from which such goods emanate. Confidence will have to be restored in Ireland in canned-meat products and the public educated to the belief that American meats are wholesome and cleanly. So hostile has been the attitude toward American canned products that even canned fruits, preserves, and pickles are suffering so that in reviving trade it will be necessary to start from the ground floor. The first company to prove its title as doing an honest, cleanly business will secure an enormous trade.

URUGUAY.

EUROPE SUPPLIES THE TRADE.

Consul John W. O'Hara, of Montevideo, writes in relation to the sale of canned-meat products in Uruguay:

There is a large amount of canned meat sold in this market when it is considered that this is essentially a meat-producing country and that native meats are only about 5 cents a pound for the best quality. The canned meats sold here are imported from England, France, Germany, and Italy. The English importations include some American brands. In addition to the demand for local consumption, there is a considerable quantity sold as ships' supplies. American canned-meat products have of late not been in favor on account of the extensive circulation of the stories of the recent American meat investigation reprinted in local newspapers. Now that this has been discounted by strict inspection by the United States Government, a good business might be secured in Uruguay for canned-meat products if the proper effort were made. [A list of importers of such products at Montevideo is registered at the Bureau of Manufactures.]

MEAT HANDLING.

GERMANY.

RELATIVE AMOUNT OF HOME AND FOREIGN PRODUCTS CONSUMED.

Consul-General Hugh Pitcairn, of Hamburg, summarizes a report of the German department of health recently published as to the results of the cattle and meat inspections in the German Empire during the year 1904 as follows:

It is worth while mentioning that during the year under report the number of cattle slaughtered was exceptionally high, owing to the prevailing scarcity in feed stuffs. There were submitted to inspection 3,328,903 head of beeves over 3 months old, 4,287,491 calves less than 3 months old, 15,066,116 hogs, 2,268,739 sheep, 423,762 goats, 122,768 horses, etc., and 4,787 dogs.

PER CAPITA CONSUMPTION.

By means of special official inquiries and the cattle census of December, 1904, an effort has been made to calculate the consumption of meat in Germany by adding to the foregoing figures those of the slaughterings which were not subject to inspection. Accordingly, the total number of animals slaughtered was: 3,418,264 oxen and cows, 4,369,351 calves, 20,999,240 hogs, 2,897,010 sheep, 1,157,913 goats, and

122,768 horses. The total slaughter weight of these animals amounted to 3,044,749 tons of meat, based on an average of 517 pounds per head of oxen, cows, and horses, 44 pounds per head of sheep and goats, 88 pounds per head of calves, and 176 pounds per head of hogs slaughtered. After deducting from this result the amount of meat condemned, approximately 12,196 tons, 3,032,553 tons remained for consumption. Consequently about 102.3 pounds of meat slaughtered in Germany were consumed per capita of the entire population. About 0.40 per cent of the meat produced was found unfit for consumption and condemned. The imports of fresh and prepared meat, lard and similar fat amounted to 183,299 tons. Consequently the consumption of foreign meat in Germany amounted to 6.2 pounds, and the total consumption of meat—both domestic and foreign—including lard, to 108.5 pounds per capita of the population. The consumption of meat in England during the year 1904 is estimated at 118.4 pounds per capita of the population, but the consumption of lard was doubtless considerably lower than that in Germany.

SELLING FISH UNDER MUNICIPAL SUPERVISION.

Consul-General Richard Guenther reports that the city of Frankfort has established a fish market under municipal supervision, which has commenced operations in a temporary market hall:

Sea fish will be sold at low prices, controlled by the city. A reliable fish-cooking book will inform interested parties of the best mode of preparing fish; this book will be furnished free of charge, as also an expert treatise relative to the importance of a fish diet. This step has been taken as a consequence of the present meat famine, and it is expected that it will meet with success, as fish is a nutrient combining a low price with high nutritive value.

SERVIA.

BRITISH CONCERN RECEIVES CONCESSION—WILL SUPPLY ARMY.

Consul M. K. Moorhead, reporting from Belgrade, says that the minister of agriculture has presented to the Skupshtina, or National Assembly, for ratification a concession to be granted to an English company for building a packing plant at Paratchin, about 100 miles south of Belgrade, on the railroad to Constantinople.

This company intends to make a specialty of exporting pork, bacon, and beef, and also to manufacture fruit marmalades and jams, chiefly those made from plums. It is reported that if this concession is granted by the Skupshtina, the company is to receive a contract for supplying the British army with meat. In order to improve the Servian live stock English cattle are to be imported for breeding purposes.

The conditions of this contract are that no other concession shall be granted within a radius of 30 miles of Paratchin; that all ingredients necessary for the industry may be imported free of customs duty; that the products of the company shall be free of the troschanna, or communal tax, levied on all goods going from one commune to another; that one-half of the employees shall be Servians, and that $10,000 shall be deposited with the Servian Government as a guaranty that the plant will be built. In 1905 the value and quantity of the chief ani-

mals and their products exported from Servia to all countries was as follows:

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Cattle.....number..	72,048	$2,099,666	Fresh meat and bacon		
Hogs.....do....	122,202	2,977,070	.....kilos[a]..	3,615,118	$578,419
Sheep.....do....	73,709	141,699	Prunes.....do....	37,615,986	1,711,269
Live poultry.....do....	1,804,809	288,702	Prune jam.....do....	16,459,919	705,272
Fresh fruit.....kilos[a]..	43,701,737	397,769			

[a] Kilogram=2¼ pounds.

BRITISH AGRICULTURAL PROTECTION.

CHAMBERLAIN COMMISSION PROPOSES DUTIES ON FARM PRODUCTS.

Consul Frank W. Mahin, of Nottingham, submits a review of the newly published report on agriculture of the Chamberlain Tariff Commission. He states that it covers 500 printed pages, and is considered of great importance in support of the contention that free imports of foreign products are inimical to British industries.

The report reviews the British agricultural policy prior to the repeal of the corn laws in 1846, and declares that under it England was practically independent of foreign supplies of food, notwithstanding the great increase of population. For instance, in the period 1841–1845, 24,000,000 persons out of a population of 26,800,000 were fed on home-grown wheat. In the ensuing fifty years the number thus fed declined to 4,500,000—a decrease of 81¼ per cent.

The report says that the price of wheat showed no decline for thirty years after the repeal of the corn laws, while the prices of oats, barley, and meat advanced during that period, and Great Britain was steadily becoming more and more dependent on foreign sources for its food supply. During the past thirty years prices have fallen, but this fall was general in other countries as well, and the British wheat-growing area has been vastly reduced, ranging from 33 to 95 per cent in the counties of England and Wales—in the Midland counties averaging 60 per cent. The commission also finds that—

The dependence of the United Kingdom upon imported food supplies of all kinds has increased from £124,000,000 to £205,000,000 (£=$4.86) since 1875, and allowing for the fall in prices, the volume of food imports is estimated to have increased during the same period by 130 per cent, or nearly four times as much as the increase in population.

The foreign producer, especially of wheat and meat, has not only supplied the increased British home demand due to the increased population and increased consuming power of the population, but has also taken from the British farmer a large part of the market upon which, having no export trade, his existence depends.

Agriculture in almost every branch shows a great decline, despite a very large increase in the population and a consequent increase in the demand for agricultural produce.

In the case of agriculture the effect of the fall in prices has been accentuated by other causes, such as (*a*) the greater relative increase in the burden of local and Imperial taxation upon the land; (*b*) transport conditions, and (*c*) the inability of the board of agriculture to aid the British farmer as his foreign competitors are aided.

The position of the United Kingdom is absolutely exceptional. No other country shows so marked a decline of agriculture; no other country depends to so large an extent upon importations from abroad for its food supply; in no other country has

the balance between agriculture and manufacturing industries been so completely disturbed to the disadvantage of agriculture. This remarkable decline of agriculture is not alone a menace to national security, but by restricting the home market must have a most prejudicial effect upon the general industry of the country.

The report declares that the causes of the decline of agriculture are world-wide, affecting all importing countries. The more severe depression in the United Kingdom has been due to causes peculiar to it. Other countries have state departments giving special aid to agriculturists, and also have relations with railways through which transport rates are controlled; whereas in the United Kingdom (though the British agriculturist is not in a legal sense discriminated against) foreign produce secures certain advantages in transport rates, entering as it does in large and steady consignments, to the detriment of the home producer.

REMEDIAL MEASURES PROPOSED.

The report continues:

We are of opinion that for removing the disabilities under which British agriculturists suffer a change in the fiscal policy of the country is absolutely necessary, but if this change is to be permanently effective it must be combined with measures dealing with transport, the enlargement of the powers of the board of agriculture, and local taxation. We are also of opinion that the position of the industry generally would be improved if means could be found to create further facilities for land purchase in the United Kingdom.

A suggestion which has been made for a bounty on wheat is not approved, but a recommendation for the storage of wheat as a food supply in time of war is indorsed.

A provisional scale of duties on imports is proposed of 12 cents per hundredweight (112 pounds) on wheat and other grain, including maize, equivalent to 6 to 8 cents a bushel, with a preferential tariff 50 per cent less to the British colonies. On flour and meal, 30 cents per hundredweight is proposed; on animals, meat, and bacon, a general level of 5 per cent, and on dairy produce and other farm and garden products, specific duties equivalent to 5 to 10 per cent ad valorem—all these being subject to special negotiation with the colonies.

With the existing great preponderance of free-trade sentiment in the British Parliament, there is manifestly no early prospect of effectuating these proposals.

DECADENCE OF INDIGO CULTURE—COTTON TAKES ITS PLACE.

Consul-General Michael also states that the indigo crop of India has fallen off until the importance of it is regarded as at the minimum.

This is due to the general use of manufactured bluing, which, though inferior to indigo, is preferred on account of its cheapness. The export of indigo ten years ago, 1895–6, amounted to 187,337 hundredweight, valued at $17,848,370. In 1905–6 it had fallen off to 31,186 hundredweight, valued at $1,954,592. The United States took 1,530 hundredweight of the last crop as against 4,334 hundredweight taken the year previous. The decrease was gradual for eight years, when the planters gave up the fight with synthetic indigo and turned their attention to other crops that promised better returns for their labor. There were 380,663 acres planted to indigo the last year, as against an average of 1,112,661 acres in the year when indigo planting was profitable.

There is a demand for indigo which can not be met with artificial

dye, and this demand will doubtless continue. The contraction of the Indian product caused a rise in the London market of 18 cents per pound this year. The rise in price has stimulated the planting of indigo to some extent, especially in the irrigating districts of the Punjab, where the best indigo is raised at the least cost. The total area of the Punjab crop of 1905–6 is now officially reported at 46,084 acres, 44,830 of which is in the three districts of Multan, Muzaffargarh, and Dera Ghazi Khan, where the crop is grown under irrigation only. Egypt is the largest buyer, the United Kingdom standing next. Persia was a heavy buyer, but her purchases shrunk 55 per cent last year. Many planters who formerly planted most of their acres to indigo state that they are now raising cotton instead of indigo. Some indigo plantations are now growing cotton, flax, rubber, and other crops.

Other dyeing and tanning materials, such as cutch, myraboloms, and turmeric have received more attention since the displacement of indigo. Last year the report of cutch amounted to 55,070 hundredweight and turmeric 49,545 hundredweight. The consumption of indigo and other dye products is increasing in India, and as the manufacture of woolens and colored cottons increase the demand for dyes will increase. The Indian is fond of bright colors, and he prefers the nonfading colors which will make a strong demand for the staying dyes.

AFRICAN VANILLA CULTURE.

PRESENT METHODS OF GROWTH AND PREPARATION FOR MARKET.

Consul-General Richard Guenther, of Frankfort, quotes from the exhaustive report of Richard Gomolla in the "Tropenpflanzer" the following summary as to the cultivation and preparation of vanilla in German East Africa:

The best variety of vanilla comes from vanilla planifolia, which requires a mucky, porous soil. The plant thrives up to a height of about 1,600 feet above sea level and as its fleshy roots do not penetrate deep into the soil it requires only a proportionately thin layer of soil. The plant bears merchantable fruit in the third year, sometimes even in the second year, which require from seven to eight months to mature, and the harvest takes place from April to June. Five to seven harvests are made from the same plant before it is exhausted. New plants must not be planted in the same place of the old.

Protection against wind, also shade, is of great importance for the growth of the plant, and therefore the fields must be surrounded by trees and hedges. Grubs and snails are enemies of the vanilla plant; the former eat the roots, the latter the young sprouts and beans. While in the third year only about one-tenth part of the plants blossom, the percentage increases from year to year up to the seventh. The cultivation of vanilla in German East Africa is impeded by the absence of insects which are instrumental in fructifying the vanilla blossoms. Each separate flower has therefore to be fructified by human hands, the cover of the stigma being raised by means of a thin little rod and the pollen, which is just above the cover, is pressed against the stigma.

When the young beans have grown to the length of a finger, they must be closely inspected and all defective ones must be cut off. The

beans mature from seven to eight months after the fructification process. The ripe beans have a yellowish green color.

The way of preparing the beans varies, but an ever-increasing temperature is required to dry them and obtain the well-known brown-black color. In this way the thin-skinned bean with its fine aroma is produced. If hot water is used for heating the beans, they are placed in baskets and immersed in it. The water has a temperature of 80° to 84° R. Afterwards the beans are packed into wooden boxes, which are lined with woolen cloth, and closed. The next day they must have a glassy appearance. They are then again wrapped in dark woolen covers and laid in the sun to dry. If the weather is rainy, they must be dried in a dry-room at a temperature of 50° R, but an after drying in an airy room of from two to four weeks is necessary. After that the dry beans are packed in tin boxes, where they, however, require close inspection, and have to be repacked every week in order to remove diseased beans or such which have become moldy.

The value of the beans is measured by their length, which is from 12 to 25 centimeters. For shipment they are sorted, bound in bundles, and put into tight but not soldered tin boxes, which are now lined with paper instead of tinfoil, as formerly. Black mold is especially dangerous to the beans, while white mold is rather harmless.

GREEK AGRICULTURAL NEEDS.

NEW COMMUNITY BEING ESTABLISHED CALLS FOR IMPLEMENTS.

Consul-General George Horton advises that the city of Athens fairly swarms at the present time with refugees of Greek blood from Russia, Bulgaria, Roumania, and other countries, concerning which he writes:

The recent destruction of the Greek city of Anchialus, in eastern Roumelia, and the flight of the inhabitants of the region, has brought the number of refugees in Athens up to 5,000. These are being fed, lodged, and cared for by the Athenians temporarily, but the question of their permanent settlement is a more serious matter. With this the chamber of deputies is now busying itself, and it is more than probable that these refugees will be located on the lands bought in 1902 by the Government from J. Stephanovik for 3,320,000 drachmas ($1 equals 5.50 drachmas).

This purchase consists of 26 villages, located in the plains of Larisa, Trikkala, Karditza, and Pharsala, and 448,420 stremmas (1 stremma equals 50.21 square rods) of land, which will be distributed among the villagers now on the ground and the refugees, the latter numbering about 1,200 families. It is estimated that about 150 stremmas of poorer grade land or 75 of the better grade can be given to each family. The villagers now tilling these lands work them on shares, in most cases owning their own agricultural implements and animals.

It is certain that the newly arrived farmers, destitute as they are of all supplies, will require plows and other agricultural implements. Catalogues and other particulars—in French, if possible—should be sent to Monsieur Calogheropoulos, minister of the interior, Athens, Greece, who performs also the functions of minister of agriculture.

TOBACCO.

BRITISH INDIA.

AMERICAN SEED STIMULATING INDUSTRY.

Consul-General William H. Michael, of Calcutta, reports that the growth of tobacco cultivation in India has been uniformly rapid.

The explanation made by those engaged in the business is that American seed has so improved the quality and quantity of the output that planters have found it profitable to grow tobacco. The crop has increased from 69,128 acres in 1902–3 to 94,962 in 1905–6, with a prospect of further rapid increase. Habana seed has done well, and the cultivation of that plant has extended very considerably in the last three years, the present area to Habana tobacco being 2,000 acres.

Where the Habana and Virginia tobacco have been extensively and successfully cultivated the leaves produced possess a far superior flavor and are of a finer texture than the local variety, besides fetching a correspondingly higher price. Where failure in growing the foreign product has been the result, the cause is mainly attributable to the haphazard way in which the selection of soil for planting is made. Besides, the pristine Burmese method of curing the leaves by sun drying is not effective.

In view of the great expansion in Habana tobacco cultivation it is not premature to predict that ere long the produce from Maubin will be able to compete successfully with that exported from Java and Sumatra, which is first sent to Europe for curing and then reimported by the well-known cigar and cheroot manufacturers in India, who use the prepared leaves as outer covers for cigars which eventually are known as "Javas" and "Sumatras."

VEGETABLE IVORY NUTS.

ECUADOR'S PRODUCTION AND EXPORTATION—FREIGHT RATES.

Consul-General H. R. Dietrich, of Guayaquil, reports that the exportation of tagua or vegetable ivory nut, during the year 1905, from all Ecuadorian ports was 19,036 tons, distributed as follows:

To Germany went 9,468 tons; to the United States, 6,285 tons; to France, 2,004 tons; to Italy, 969 tons; to Great Britain, 255 tons; to Spain, 48 tons; and to Colombia, 7 tons. The tagua nut is exported shelled and unshelled; the price paid on shore for shelled is from 200 to 210 sucres, and for unshelled from 110 to 120 sucres per metric ton; the export duties and shipping expenses are 36 sucres per metric ton. Consequently the shelled tagua would cost at Guayaquil f. o. b. from 236 to 246 sucres, equal to $114.93 to $119.80 United States gold, and the unshelled from 146 to 156 sucres, equal to $71.10 to $75.97 United States gold per metric ton of 2,204.6 pounds.

The freight rates are, to New York, $10, and to London, Hamburg, Havre, Antwerp, and Trieste, £2 ($9.73) per metric ton. The average crop and exports of tagua in Ecuador can be figured at about 20,000 metric tons per year, as will be seen by the following statement for the last six years as taken from official statistics: In 1900, 21,500 tons; in 1901, 26,600 tons; in 1902, 18,200 tons; in 1903, 18,130 tons; in 1904, 21,085 tons; and in 1905, 19,036 tons.

VOLCANIC ASH ON CROPS.

RESTORATION OF AGRICULTURE AFTER ERUPTION ON ST. VINCENT.

Consul Arthur J. Clare, of Barbados, advises that W. N. Sands, agricultural superintendent in St. Vincent, has forwarded to the British imperial department of agriculture for the West Indies the following notes on the influence of volcanic ash on crops in that island:

As far as St. Vincent was concerned, the advantage of the volcanic ash which fell during the last eruption of Soufriere was practically nil, as, with the exception of sugar cane and leguminous crops, such as pigeon peas and groundnuts, no other crops can be grown satisfactorily in it. Of course the rainfall of the island is a heavy one, but even during two or three weeks of dry weather plants suffer severely.

Take for instance cacao. On the leeward side of the island, in those districts where a large amount of ash fell, the trees are producing little or nothing. They are much diseased and present an unhealthy appearance generally. On the windward side of the island, at Mount Bentinck estate, the cacao trees are doing well, and this is due to the ash being entirely taken from around the trees after the eruption. On the leeward side the cacao trees were not treated in this way, and on inspecting the fields of Messrs. MacDonald Brothers, at Richmond Vale, it was seen that the ash from the first eruption had set almost like concrete over the surface of the original soil, killing, of course, a large proportion of the roots near the surface; hence the bad condition of the trees.

Cotton, again, is more or less a failure in volcanic ash. Mr. Thornton and myself recently inspected large areas in the Carib country, and, as mentioned previously, only deep cultivation and a system of mixing with the ash a large quantity of organic matter, by means of manure and green dressings, will bring back the lands to such a condition as will enable crops like arrowroot and cotton to be successfully grown.

The growth of the pigeon pea planted thickly and buried in the ash just before it reaches the flowering stage would help considerably. This plant grows extremely well and sends out a large number of roots into the ash, which, when examined, are found to bear a large number of nodules.

The planting of sugar cane, which requires deep cultivation in order to produce a satisfactory crop, would also help, but a system of green dressings of leguminous plants appears to hold out most hope of success in the reclamation of these lands with a large proportion of ash and sand.

CALIFORNIA CROPS.

YIELD OF FARMS AND VINEYARDS.

The California Fruit Grower publishes some of the harvest returns of that State for last year, with comparisons of previous years' crops, as follows:

Articles.	1903.	1904.	1905.	1906.
Almond yield ..... tons..	3,200	800	2,100	700
Beet-sugar output ..... do....	65,360	59,147	64,210	67,500
Brandy production ..... gallons..	5,700,343	4,420,829	4,934,008	4,070,992
Canned fruit and vegetable pack ..... cases..	4,077,078	3,801,516	4,475,751	(a)
Citrus-fruit shipments ..... carloads..	23,871	29,399	31,422	27,610
Cured fruit and raisin output ..... tons..	180,250	135,050	120,700	163,950
Honey yield ..... pounds..	8,400,000	1,040,000	10,000,000	4,510,000
Hop crop ..... bales..	56,000	63,000	73,000	105,000
Prune output ..... pounds..	165,000,000	135,000,000	62,500,000	185,000,000
Raisin yield and pack ..... do....	120,000,000	80,000,000	90,000,000	100,000,000
Vegetable shipments ..... tons..	86,620	52,515	67,900	67,900
Walnut yield ..... do....	5,500	7,590	6,400	6,000
Wine production (dry and sweet) ... gallons..	34,571,856	29,161,198	26,502,310	38,000,000

a The pack of canned fruit for 1906, exclusive of vegetables, is estimated at about 75 per cent of that for 1905, which was 3,283,296 cases.

RAFIA WAX AND MANIOC.

As the American consulate at Tamatave is inundated with letters of inquiry consequent upon the publication of Consul W. H. Hunt's reports respecting rafia wax and manioc root, he now writes as follows to place merchants and importers on their guard in their overestimate of the capabilities of Madagascar:

As to the development of the two products of the island, a new wax or gum found in the rafia palm and manioc root or cassava, for exportation for the manufacture of alcohol, both are still only in their experimental stage and the supplies are still small. The supply of wax, I fancy, would barely satisfy the many demands for samples alone, and the suggested orders for thousands of tons of manioc root are yet quite incompatible with the present output. That these industries are capable of being greatly developed in the future is more than probable and originated my reports and descriptions, but to guard against erroneous ideas it is well to inform American merchants that nothing on gigantic scales is yet to be looked for.

DAIRY PRODUCTS.

CANADA.

DAIRYMEN URGED TO KEEP PRODUCT PURE—AMERICAN COMPARISONS.

At the special meeting of the Frontenac dairymen, held at Inverary, near Kingston, in December, some interesting statements were made, which have been summarized by Consul H. D. Van Sant as follows:

It was stated that there were 201,000 farmers sending milk to cheese factories in Canada, and that 225,000 were directly interested in the dairy business. Government estimates placed $175,000,000 as invested in cows, lands, factories, and appliances devoted to the cheese-making industry in Canada. It was claimed by the secretary of the Eastern Ontario's Dairymen's Association that the Americans had almost entirely lost control of the dairy and cheese trade in England. The export trade of Canadian cheese during the past year had amounted to $24,000,000, while the export trade of the United States was $2,000,000. A few years ago the export trade was largely in favor of the United States.

It was claimed that the American dairymen had started skimming the milk for export cheese making and that the English people would not put up with this, and as a result had commenced to buy in increased quantities from Canada, where high-quality cheese, without skimming, was made for the export trade. Also, owing to the increased market in the United States, the best cheese made there was used for home consumption. It was for this reason that Canadian cheese had taken first place in the English and Scotch markets. But the speaker said there was now danger of Canada losing this enormous trade, as the Yankee dairymen were enlarging their output with more modern appliances, and beginning to again produce a pure, unskimmed cheese for the export trade, which would again find favor in the English

market, unless means were obtained to hold the lead which Canadian cheese had won. Of late the cities of Canada were demanding purer milk than they had been receiving. The agitation for purer milk taken up by the Canadian newspapers would have its effect in England and Scotland, where it might be said that the cheese now sent from Canada might be made up of the same impure milk that was being consumed in the cities of Ontario.

It was also stated that some of the cheese factories of Ontario had deteriorated from their former good sanitary condition, and therefore the salvation of the great industry depended in a measure upon a correction of these conditions. Figures showed that Canada had exported 95,884 tons of cheese, while that of the other countries combined only totaled 33,000 tons. Cheese had reached the top notch in price during 1906 at 13½ cents a pound, being the highest price paid in Ontario.

The American cheese maker will be able to increase his export trade by sending out cheese made entirely from unskimmed milk, and again establishing a standard of excellence in the quality of future exportations and by judicious advertising of the improved appliances and brand.

[The exports of American cheese for the calendar year 1906 were of the value of $2,700,000 as compared with $869,604 in 1905.]

UNITED KINGDOM.

BUTTER AND CHEESE IMPORTS FOR TWO YEARS.

As the imports of butter and cheese into the United Kingdom are not only of vast proportions, but steadily increasing, the annexed statement, prepared from British official returns, should be of interest to dairymen of the United States and those who handle American butter and cheese for export. The table shows the imports of butter and cheese into the United Kingdom during the first eleven months of the years 1905 and 1906.

Whence imported.	Quantity.		Value.		Price per pound.	
	1905.	1906.	1905.	1906.	1905.	1906.
BUTTER.	*Pounds.*	*Pounds.*			*Cents.*	*Cents.*
Denmark	169,317,792	172,852,176	$39,987,600	$43,076,700	23.61	24.92
Australasia	74,646,880	80,958,416	15,979,600	18,573,600	21.41	22.95
Russia	48,657,952	65,980,320	10,239,700	13,775,700	21.04	20.88
France	36,497,304	34,020,560	8,426,000	8,184,000	23.09	24.06
Canada	32,439,008	21,498,064	6,889,700	4,775,500	21.24	22.22
Sweden	19,106,640	18,759,776	4,463,600	4,614,000	23.36	24.60
Netherlands	22,048,992	20,657,952	4,784,200	4,558,000	21.30	22.10
United States	7,647,024	17,609,648	1,562,200	3,639,300	20.43	20.70
Germany	325,136	1,188,320	72,700	272,500	22.36	22.93
All other countries	17,518,840	13,468,112	3,855,800	3,174,300	22.06	23.57
Total	428,205,568	446,993,344	96,261,100	104,643,600	22.48	23.20
CHEESE.						
Canada	195,228,096	205,119,488	21,783,000	26,025,200	11.16	12.69
United States	16,490,544	25,306,512	1,773,000	3,091,700	10.75	12.22
Netherlands	21,568,288	23,548,672	2,183,200	2,429,400	10.12	10.31
New Zealand	8,499,120	12,842,032	997,600	1,639,200	11.74	12.77
France	5,078,304	4,450,768	718,600	629,800	14.05	14.12
All other countries	6,738,816	8,298,752	962,800	1,159,300	14.30	13.97
Total	258,603,168	279,566,224	28,413,200	34,974,100	11.20	12.51

JAPAN.

IMPORTS FROM VARIOUS COUNTRIES.

Consul Hunter Sharp, writing from Kobe, says that the butter imports there in 1905 amounted to $17,046. Margarin imports amounted to $35,000; cheese, $3,616, and eggs, $196,476. China supplies the egg imports.

Of the butter $1,870 came from the United States, against $9,337 from France and $4,084 from Australia. The previous year America held the premier position, but the French brands have since taken the lead on account of the superior attractiveness of their gold-lettered tins, although the flavor is not equal to that from America and Australia. American butter would have a greater hold on the market if it were not for the fluctuations in price as compared with other kinds, and the variation in quality. The retail price at present is 42 cents per pound for American, 45 cents for Australian, and 47 cents for French. Of margarin the United States supplied $913 worth, France $3,479, Holland $23,467, and Germany $4,455. The Dutch article comes in cases containing 100 1-pound tins. The United States led in cheese sales with $1,927.

STRAITS SETTLEMENTS.

SINGAPORE A GOOD CONDENSED MILK MARKET.

Vice Consul-General G. E. Chamberlin, of Singapore, mentions the fact that there is a growing demand for condensed milk in the Straits Settlements and comments:

With liberal advertising and pushing the sale of the American product should largely increase. The fresh milk supply is of a very poor quality, it being principally buffalo cows' milk. While the American product is being sold in this market and shows a substantial increase during the year 1905, the amount sold is small compared with the total imports. The following table shows the number of cases imported during the years 1904 and 1905 from the principal countries supplying this product, also total from all countries, showing a net increase of 31,235 cases for 1905:

Country.	1905.	1904.	Country.	1905.	1904.
	Cases.	*Cases.*		*Cases.*	*Cases.*
Italy	95,005	73,877	Hongkong	5,392	8,923
Belgium	18,640	11,060	Sweden	1,470	.....
United States	7,856	6,532	Denmark	1,256	500
France	7,654	6,582	Other countries	2,099	3,358
Germany	5,639	4,024			
United Kingdom	4,906	7,026	Total	148,117	116,882

MACHINERY AND MINING.

MODERN MECHANICAL EQUIPMENTS.

INDIA.

Writing from Serinagur, the capital of India's Himalayan province of Kashmir, Special Agent Charles M. Pepper describes an American commercial success, the outcome of which will undoubtedly extend the prestige of goods manufactured in the United States. The letter reads:

American adaptability to foreign needs finds a very striking illustration in a country so far away as Kashmir. A great hydro-electric power project undertaken by the State depends for its success on manufacturers in the United States who have been enterprising enough to meet the conditions required, and in consequence have been awarded the contracts for the electrical, hydraulic, and dredging plants which are included in the plans. Later it may be within their sphere to secure the contracts for the railway which is part of the general project.

Additional interest is given the enterprise because Kashmir is one of the native States of India, and, while within the sphere of British influence, it is independent, and the measures taken for development are entirely of its own initiative. The present scheme of utilizing vast and hitherto wasted natural resources by means of electricity is especially the work of the very progressive ruler of Kashmir, the Maharajah, who has committed his government to it, and who gives it much of his personal attention. The results which are promised for Kashmir fully justify the liberal spirit in which the Maharajah is carrying out the project.

THE JHELUM VALLEY.

The importance of the work will be understood from a brief statement of the geographical position of Kashmir and of its products and industries. The highway to central Asia, it is entered from northern India by a number of mountain roads or trails, most of which converge to the main thoroughfare known as the Jhelum Valley route. This route begins at the railway station of Rawalpindi, and comprises 200 miles of fine mountain roadway, used alike for passenger travel in tongas (small two-wheeled stages) and for freight transport by bullock trains and other means. It ends at Serinagur, a city of more than 150,000 inhabitants. From Serinagur camel caravan routes lead across the rocky deserts to Leh, on the Indus River, which is the center of the Ladakh or Indian Thibet, and is the way station of the caravans across the lofty passes of the Himalayas to Yarkand, the gateway of Chinese Turkestan.

The Jhelum River has a fall for 80 miles of its length averaging 31 feet per mile, and in places much greater than this, the minimum discharge being 30,000 gallons per second. Kashmir has no coal of good quality, and the forests are not capable of supplying fuel for more than the daily needs of the population, leaving nothing for the industries requiring steam power. With regard to a railway connecting Kashmir with British India, a variety of reasons, some of them urgent, makes it desirable that this means of communication be established. The more so since the Jhelum valley section, 180 miles in length, can be operated by electricity developed by water power from the river.

A MILLION HORSEPOWER AVAILABLE.

The possibility of eventually utilizing the energy of the Jhelum River, something over 1,000,000 horsepower, that has been going to waste for centuries, was strongly represented to the Kashmir government by Maj. A. J. Lotbiniere, of the royal engineers, who had been engaged in electrical work in other parts of India. Major Lotbiniere is a Canadian, and he had also familiarized himself with the progress of electrical invention in the United States. His investigations were supplemented by a technical expert, who made detailed studies in America. The outcome was the authorization by the Kashmir State of contracts for the plants now being installed on the Jhelum River. This Government plant will supply power for many purposes, among them the following:

For heating the filature basins (2,000 in number) in the State silk factory at Serinagur.

Oil crushing, woolen, rice, and husking mills, and lighting.

Operating a fleet of dredges, both dipper and hydraulic, that will be employed in deepening the bed of the Jhelum River in order to relieve the country of the annual floods, which cause great damage throughout the valley, and to enable 100,000 acres of rice lands to be reclaimed. These lands are now under water, and can not be reclaimed till the bed of the Jhelum is lowered 15 feet for a distance of 8 miles from the Wular Lake to the point where it leaves the valley and enters the hills. It is proposed to deepen the outfall of the river by electrically-operated dredges and then to cut drainage channels from the inundated lands into Wular Lake.

COMPLETE AMERICAN EQUIPMENTS.

The electrical plant now in course of erection has the power-house located near the village of Rampur, about 60 miles from Serinagur. The hydraulic works will be capable of supplying water sufficient to generate 20,000 horse-power. The water is drawn from the river by suitable controlling works and carried in a part masonry and part wooden flume, 8½ by 8½ feet, for a distance of 6½ miles along the hillside. At this point the flume terminates in a forebay situated 400 feet above the river below. The generating station is now in course of construction, and 5,000 horsepower of the plant is to be erected at once, the balance of 15,000 horsepower being put in as demands arise. When the Kashmir State authorized the general project, bids were invited for the whole of the electrical plant. Four tenders were made, of which two were by European companies. This contract was awarded to the General Electric Company of New York, which is now

engaged in supplying the equipment as called for. Importations are made through the port of Karachi on the Arabian Sea.

The contract for the turbines and the whole of the hydraulic plant was let to Abner Doble & Co. of San Francisco. They will supply the waterpower machinery as called for.

The award for the entire dredging plant was made to the Bucyrus Company of South Milwaukee, the General Electric Company supplying the accompanying electrical motors, etc. So much importance is attached to the dredging work that a technical representative of the Kashmir State went to Milwaukee to confer with the manufacturers, and the dredges will be built from plans specially drawn. The type is reported to be a modification of that used on the Panama Canal. The dredges are not required to be supplied for two years. The Kashmir representative returned from the United States in September, and the final terms of this contract for the dredging plant have just been approved.

PROSPECTIVE RAILWAY TO COST $10,000,000.

While the railway project is not likely to take the form of contracts for two or three years yet, it is nevertheless worth a little attention now. It involves the cooperation of the Government of India with the Kashmir State. The line will start from the station of Sarai Kala, beyond Rawalpindi, on the Northwestern Railway, which is an India Government line. It will be of broad gauge, the same as the Northwestern system, as far as Abbottabad, and this section will be operated by steam power, and will be owned by the Government of India. The Kashmir section will be narrow gauge, will be owned by the Kashmir State, and operated by electricity. The estimated cost of the whole line is $10,000,000.

WHOLESALE MANUFACTURE OF NITRATE FERTILIZER.

A prospective development of the utilization of the Jhelum River power has a world-wide relation to the chemistry of commerce. This is the possibility of the manufacture of nitrate of lime as a fertilizer. The cliffs and hills which wall in the Jhelum River are of limestone. The application by Norwegian manufacturers of the discovery of Danish chemists that by the agency of powerful electric currents the nitrogen of the air can be extracted and mixed with lime so as to obtain nitrate of lime has been investigated on behalf of the Kashmir State, and the conclusion reached that the experiment is worth trying. The conditions are similar to those in Norway—plentiful water power which can be easily turned into electric power, and unlimited limestone.

Chilian nitrates of soda have never found a paying market in India, not only because the native cultivators are slow to employ fertilizers, but also because of the cost of transportation. Efforts have been made by the government to induce the use of artificial manures, but their cost always has been an obstacle. The need of obtaining a cheap fertilizer has been felt in the endeavor to break through the conservatism of the Hindu farmers. The Punjab, the great grain-growing region of India, is close to Kashmir, and would be the natural market for a cheap fertilizer obtained from the limestone hills by electrical energy.

GOVERNMENT EXPERIMENTAL FACTORY—AMERICAN COLONY.

These and other considerations have given encouragement to the plans for repeating in Kashmir the Norwegian experiment. When

the contracts for electrical installation were being placed in the United States, American manufacturers were invited to come to Kashmir and take hold of the conversion of the air and the limestone into fertilizers, but no one was found ready to embrace the opportunity as it was then presented. The probability now is that the Kashmir State will authorize the engineer in charge to erect a small factory capable of producing 1,000 tons annually, which will be sufficient to demonstrate the commercial practicability of the scheme and the value of the product as a fertilizer, while at the same time testing the extent of the market. After that American or European enterprise should do the rest. The experiment is certain to be followed with great interest both by agriculturists and by scientists who are engaged in commercializing the forces of nature. If successful they will be another tribute to the progressiveness of a native Indian State.

The awarding of the contracts for the electrical and other plants to firms in the United States has brought a small group of Americans into Kashmir, and their number will be increased as the work of installation proceeds. It is also somewhat significant that young Kashmirans who several months ago secured State scholarships abroad will go to the United States to complete their studies in mechanical and electrical engineering, and thus fit themselves for their future work.

MACHINERY EXCHANGED FOR CARPETS.

The importations of American machinery into Kashmir will equalize, and for a time probably counterbalance, the fine rugs and carpets which are regularly exported to the United States. Direct shipments are made, and the trade is a considerable one. Some fine shawls are also exported, and should the Kashmir shawl again come into fashion this business would increase. The work of the Kashmir artisans in leather, wood carving, papier maché ornaments, and metals is famous, and a few of their products find a market in New York. Some fine skins and hides and a little wool are likewise shipped direct for special purposes, but the heaviest trade is likely to continue to be in carpets and rugs. The Kashmir looms are now making a specialty of the small patterns in Persian designs, since these find the greatest favor with American buyers.

GERMANY.

COURTS DECIDE THAT EQUIPMENTS BECOME FIXTURES.

Vice-Consul W. C. Schnieder, of Freiburg, reports as follows upon a recent decision of the supreme imperial court of Germany, holding that machinery when installed in a factory becomes a fixture, which decision will be of interest to manufacturers and dealers in machinery in the United States who export to Germany:

The highest court of the Empire, the "Reichsgericht," has lately in a number of cases held that machinery when installed in a factory or manufacturing plant becomes a fixture, and that therefore a sale upon condition that the title remain in the seller until the machinery is paid for or the lien of the vendor on the goods sold must give way, in case of the bankruptcy of the buyer to the rights of his creditors, and the machinery becomes part of the assets of the bankrupt. The rights of the holders of mortgages on the plant therefore have precedence over

the rights of the seller of the machinery, no matter on what terms the sale was made.

German manufacturers of machinery are strongly protesting against this decision by the court, calling attention to the fact that this ruling is unjust, the mortgagee receiving rights and security upon which he did not rely when he loaned his money, while the seller of the machinery is deprived of rights for which he expressly contracted, and relying on which he sold the goods and gave the buyer credit. It is claimed that this ruling of the court will greatly impede industrial progress, in that it will greatly limit the credit given by manufacturers and dealers in machinery to capable men who are short of capital and need assistance in the shape of credit in establishing new plants or enlarging those already established.

In its decision the court has entirely ignored the question of whether the machinery in fact becomes a part of the factory or plant; that is, whether it truly becomes a fixture in the sense in which that term is used in American law, so that its removal or separation from the building would injure or change the latter. In most cases, of course, this is not the case. It is claimed by many that the decision is therefore contrary to the code of 1900, and that therefore the court will sooner or later change its ruling, but others believe that an amendment to the law will be necessary to repair the damage, and this is believed to be practically impossible, because of the popular prejudice against amending the law so soon after it has gone into effect.

Manufacturers and dealers in machinery who deal with German customers should therefore be very careful about the credit of their prospective customers and should not rely entirely upon the conditions of their contract of sale, securing to them vendor's liens or other means of security by retention of title until payment, etc.

MANUFACTURERS ARE BUSY WITH HOME ORDERS AND EXPORT LESS.

Consul Thomas H. Norton, of Chemnitz, states that a review of the year 1906 makes it evident that there is a distinct change in the general movement of the products of the many great machine works of the German Empire.

While there was a very marked increase in the output of the various establishments and there is every reason to expect an equally marked increase in dividends for 1906, exports in this branch of the national industry steadily decreased. Compared with 1905, machine exports show a diminution in value of 15 per cent, in quantity of 16 per cent. The export of machinery for flouring mills, distilleries, and breweries shows a slight increase on that of 1905. In other branches the reverse is the rule, and it is most strongly marked in the case of steam engines. A backward trend in the export of engines began early in 1905. It is possibly due to the increased utilization throughout the world of water power in connection with electric plants.

The flourishing state of this German industry, despite the lessening of its foreign trade, shows clearly that in the Empire, as in the United States, the demands of the home market both in manufacture and agriculture, are increasing in an unusually rapid ratio. It is impossible as yet to ascertain the exact extent to which the recent establishment of the higher duties on imported machinery has exerted an influence in this connection, but apparently it is a leading factor among several,

which have produced the existing very prosperous condition, not only in machine manufacture, but also in almost all industrial lines in Germany. The closely allied branch of the manufacture of rolling stock for the railroads shows a remarkable advance. This is also quite similar to existing conditions in the United States, and reflects the increased demand upon transportation, which in turn is a barometer for general trade.

SOUTH AFRICA.

IMPROVED IMPLEMENTS NEEDED FOR EXTENDING ALFALFA CULTURE.

Consul-General Julius G. Lay, of Cape Town, has just returned from a trip through the western part of Cape Colony in order to study agricultural conditions and the opportunities of further developing the sales of American agricultural machinery and farm implements. He arrives at the following conclusions:

There are many evidences throughout this district of efforts to develop the farm on more advanced lines, and more attention is given to the breeding of cattle, horses, and sheep. I spent four days on a farm of 16,000 acres in the Caledon district, 12 miles from the railway (owner's name on file at Bureau of Manufactures), which, if money intelligently invested and hard work count for anything, promises to be one of the finest estates in South Africa. The proprietor's object is to breed high-grade cattle, sheep, and horses in large numbers and sell these animals in South Africa to improve the breed of stock. For feed he will depend largely on alfalfa, grown with the aid of irrigation. Already a dam has been built on this estate, at a cost of about $25,000, to water the alfalfa, of which 1,200 acres will be put in during 1907. This expenditure is justified by the present price of alfalfa here, of about $25 a ton, with an annual yield per acre of 9 tons. This price will not be maintained, as many farmers in this country are unfortunately devoting all their energies and capital to what might be called a lazy-man's crop, so the supply will in two years meet the demand, but for the present this fodder has no competitor for cattle, horses, sheep, or ostriches, and as a money-maker it is better than a gold mine. I know of one instance of 30 acres of alfalfa in the Transvaal paying a man $7,500 a year.

FIELD FOR AGRICULTURAL MACHINERY.

The development of this crop opens a field for agricultural machinery which is worth securing, and American implement manufacturers should make every effort to supply machines for the following purposes: Drilling machine for sowing alfalfa seed in drills, with rows 18 inches to 2 feet apart, cultivator, mower, a machine for separating or freeing the crown after crop is cut, when in two or three years the crown becomes hidebound. I understand that none of the machines at present on the market here are entirely satisfactory.

While stopping at several farms it was noticed that most of the reapers in use were of Canadian make, and that everything else being equal the preference was naturally given to the British-made article, but American windmills are to be seen everywhere, and South Africa is a good market for windmills. It was noticed that about 50 per cent of the barbed wire for fencing comes from America—England, Belgium, and Germany supplying the other 50 per cent; but the United States

does not furnish any of the iron or steel fencing standards, which are shipped to this country to the value of about $500,000 annually.

It was gratifying to learn from farmers whom I met that American agricultural implement firms are represented by intelligent, obliging agents, but the manufacturers must supply their agents with complete stocks of all machines and parts. No intelligent farmer will buy from catalogues.

MINING MACHINERY FOR ZAMBEZIA.

Consul W. Stanley Hollis writes that the new governor-general of Lourenço Marquez has announced his intention of doing something to encourage the development of the mineral resources of that Portuguese East African colony, and, as the Zambezia district is rich in gold, copper, silver, and coal, there will, in all probability, soon be quite a demand for mining materials and supplies. Already new gold crushers are being installed. American manufacturers and exporters ought to come in for a share of this prospective business in Zambezia, but, unfortunately, there are no official or commercial representatives in any part of that rich country.

SWEDEN.

AMERICAN PLOWS IMITATED AND SOLD AT LOW PRICES.

Consul Robert S. S. Bergh, of Gothenburg, responding to inquiries, states that American Albion, Deere, Victoria, and Oliver plows have been known and used in Sweden for ten or more years. He says that Swedish mechanical works make Albion and Oliver plows, which are sold about $2.60 cheaper than the genuine American plow, but that it is doubtful whether the Swedish products are so good as those made in the United States. The consul further says:

The American plows are considered excellent for the kind of soil they are made for but very expensive, about $16 to $20 each. Swedish two-horse plows of the common model, more suited for all kinds of soil, cost up to 40 kronor ($11). A one-horse plow sells for about $5. I believe that knife colters, fastened to the beam, are mostly used, but "skimming colters" are also used, especially on the American plows and imitations; "bastard colters" or cutters standing up from the share have also been tried. Here, as elsewhere, plows are made and used in different sizes or weights and with different moldboards, but I believe that plows requiring least power are most liked.

BRAZIL.

ALCOHOL ENGINES IN SOUTH AMERICA.

According to Consul-General G. E. Anderson, of Rio de Janeiro, the development of alcohol engines to take the place of gasoline engines in the United States as a result of the recent legislation for the use of denatured alcohol is watched with much interest in Brazil.

The manufacture of practical, simple, and cheap alcohol motors similar to the gasoline motors now sold will meet a ready demand in Brazil. Gasoline is costly and the difficulty of transporting it, passing it through the customs, and caring for it afterwards, under very stringent reglations, has retarded the introduction of gasoline power in many

lines. On the other hand alcohol is cheap in Brazil and most sugar-making countries. Large quantities of it are exported and immensely increased quantities could be made easily and cheaply, the present output being measured more by the demand for it than by the possibilities of production. The sugar alcohol in Brazil is used without any denaturing process. It comes in several grades, some of which are of too low degree to burn readily, but a demand for high-grade alcohol for power fuel or any similar purpose could and would be met quickly. Alcohol of export grade has been shipped from Brazil in recent years at about 40 cents per gallon. The further development of the sugar industry, which is following increased demand for Brazilian sugar in Europe, will doubtless lead to the production of alcohol at a much lower cost. At present in Brazil it has few industrial uses.

PERU.

STEAM FIRE ENGINES IN USE.

According to a report from Consul-General S. M. Taylor, of Callao, the fire departments of the various cities and towns of Peru are voluntary, on lines similar to the old days in the United States before the advent of the steam engines. The departments, however, use steam engines drawn by men, five of whom are usually detailed for an engine. The engine must therefore be of a size that such a number can draw conveniently. All these engines are built in France and England. The United States fire-engine manufacturers seem not to be able to provide the requisite size that will do the work required.

IRON AND HARDWARE.

AFRICA.

GALVANIZED AND CORRUGATED PRODUCT IN EXTENSIVE DEMAND.

Consul-General Julius G. Lay, writing from Cape Town, says that when the enormous quantities of galvanized sheet and corrugated iron used in South Africa are noticed in the form of iron buildings, iron headings, iron roofs, iron fences, iron tanks, and iron gutterings, it is very surprising that some reasonable proportion is not manufactured in the United States.

In 1905 the declared value of corrugated iron imported into Cape Colony amounted to $833,718. Of this amount $812,224 was for that of British manufacture, the quantity imported from the United States being so small as not to be separately defined in Government statistics. Of the total amount imported that which was entered for consumption in Cape Colony alone was valued at $764,916.

The customs tariff of May, 1906, provides a duty of 3 per cent ad valorem on foreign manufactured iron, while that of British manufacture is entered free. This small preference does not seem adequate to keep American manufactures out of the market altogether. Cape Town importers claim that on the small quantities which have been imported from America the landed price exceeded that of the English by only about $1.82 per ton. It is stated by those in the trade and handling very large quantities of corrugated and sheet iron that it is

just a matter of price. If the American manufactured iron could be delivered at equally low prices as the English, a fair portion of this trade would go to America. The American price must necessarily be low enough to offset the preferential duty of 3 per cent.

A Cape Town firm in 1906 gave a trial order for 100 tons of American corrugated iron, and were so satisfied with the quality that they were willing to place further orders for 200-ton lots if prices were advantageous; but as the price was slightly higher than that of English manufacture their orders went to Great Britain. This firm state that they gave the American iron a thorough test, by curving, straightening, and then recurving it, and found it equal in every way to the very best iron of English make, as it stood the test without cracking. The corrugations were also said to be quite as satisfactory as the English.

HOW ORDERS FOR AMERICA MAY BE SECURED.

If the state of the English market were watched by the American manufacturers and exporters, and when English prices were advancing an effort were made to take advantage of the market, some good orders would certainly result. A very slight advantage in price would cause trade to go to the American exporter. On this class of article low freights should be obtainable so that any advantage in price would not be offset by a disadvantage in freight. While freight rates vary, and no permanent rates can be given, the present rates on this class of goods from London or New York to Cape Town are in favor of London by about $1.22 per ton. Corrugated iron is being sold to Cape Town builders and contractors at about $73 per ton (2,000 pounds) and galvanized sheet iron at about $70.56.

American exporters should be very careful in quoting ton prices to state whether it is long or short ton, as, unless this is done, a misunderstanding is likely to arise. It is learned that quotations were given at Cape Town recently for American corrugated iron which were likely to lead to big orders, but the uncertainty of the quotation being for long-ton weight (2,240 pounds), as the English iron is always sold, caused firms to hesitate until cable advice had been received on the weight. When this arrived it was found to be for short-ton weight, and the advantage in price was found to be on the side of the English exporter.

Both corrugated and galvanized sheet iron are staple articles in South Africa and probably always will be, as it is used so largely where in America wood is used. The price of timber is very high and the iron is found much cheaper, and is of course very much more durable. In many parts of the country whole villages are built almost entirely of corrugated iron, some iron houses being lined with brick, some with wood, and a great many, which are occupied by poor whites and natives, are not lined at all.

EUROPE.

GREAT POPULARITY OF AMERICAN HANDSAWS IN SCOTLAND.

According to Consul Rufus Fleming, of Edinburgh, Scottish carpenters, joiners, and cabinetmakers have long shown a decided preference for American handsaws. He writes:

An Edinburgh saw expert informs me that these tools have now gained such a reputation that they have the first-grade market prac-

tically to themselves. Probably over 75 per cent of the handsaws now sold to skilled mechanics in this district are American. English saw makers have closely copied standard American saws so far as appearance goes, but my informant asserts that they have entirely failed to imitate the American quality. His opinion is that the only serious obstacle to the introduction of any new high-grade American saw here would be the existing complete satisfaction with the goods of certain American manufacturers already well established in this market. An Edinburgh saw dealer tells me that he gets 10 per cent more discount on the best Sheffield saws than on American saws, but that he finds it more profitable to handle the American goods, owing to the strong preference for them.

Speaking generally, I may mention that only the best wares are good enough for the Scottish market, and that this rule applies with especial force to tools of every description. As yet, American carpentering saws other than handsaws are little sold in this district. I may mention that Swedish handsaws and French circular saws are sold in this market, and that German meat saws have a considerable sale here. [Lists of leading hardware firms selling saws in Edinburgh and throughout the world can be obtained from the Bureau of Manufactures.]

IRON AND STEEL SMELTING BY ELECTRICITY.

INTRODUCTION OF NEW PROCESS IN ENGLAND—ITS LIMITATIONS

Consul Charles N. Daniels reports that the corporation of the city of Sheffield recently conducted a three weeks' exhibition for the purpose of giving greater publicity to the electrical-supply department, which is a municipally owned and managed department of the city. Among the many electrical devices there exhibited was a small model of the Grongal Kjellin induction furnace, concerning which several consular reports have been published. Mr. Daniels writes:

This particular furnace was built to melt platinum, but during the exhibition was daily used to produce small ingots of steel, and at the close of the exhibition was taken to the National Physical Laboratory at London. On December 3 a member of the Kjellin company lectured before the Sheffield Society of Engineers and Metallurgists at the department of applied science, University of Sheffield, upon the subject of steel making in electric induction furnaces.

Sheffield steel makers have been so often told that the days of best Sheffield crucible cast steel, made by the methods they are thoroughly familiar with, were past, that they expected this lecture to be a repetition of that statement, but the lecturer made no such extravagant claims. He began by referring to the three well-known principles of electric smelting—i. e., heating the charges by the electric arc, by internal resistance, or by induction. He described the arrangement for melting by induction, the principle adopted in the Kjellin furnace. Having pointed out that the furnace is simply a melting furnace, the lecturer gave a brief technical description of the Kjellin furnace. Currents are induced in a magnetic field by means of the primary circuit, maintained by an alternating current of high frequency, and this arrangement forms and maintains by induction a secondary circuit

in the molten charge itself, disposed as this is in an annular crucible around the magnetic field. The charge offers high resistance, and accordingly melts. There are various modifications of the arrangement of the primary circuit and magnetic field in the different types of furnace, but the principle is the same in all induction apparatus.

MISLEADING CLAIMS.

Having disposed of the technical description of the furnace, the lecturer asked in what way the induction furnace might be most successfully used. Everyone was familiar with the frequently made assertion that the furnace, or, indeed, any type of electric furnace, could produce high-grade crucible steel from inferior material or even direct from iron ore, and that in consequence the crucible process was doomed. These statements were most misleading. It was true that impurities could be reduced, to a certain extent, in this furnace by adding "physic," and that rusty scrap iron could be properly reduced.

It was also true that high-class iron ore could be reduced to pig iron by means of the induction furnace, but it must be clearly understood that for such work power must be so cheap that the process could only be carried out successfully in localities where power was to be had for next to nothing; at least the present state of the art had not proved a commercial success. The furnace was only a modified crucible furnace; high-grade raw material must now, as heretofore, be used to produce high-class steel. It was not commercially possible to make high-class steel from inferior material, laboratory assertions to the contrary notwithstanding; then, too, the difference in price between superior and ordinary raw material, as compared with the price of the final product, made this point one of minor importance.

COST OF OPERATING.

What the induction furnace would do was to permit of larger cast, a cheaper and cleaner form of melting, and reduced cost of labor. The demand for big crucible quality ingots was increasing day by day. Die ingots ranged up to 2 tons weight, and the quality of steel must be perfectly regular and sound. Crank shafts and axles for motor cars necessitated the use of heavy crucible ingots. With few exceptions the crucible-steel makers were confronted with really practical difficulties in making large ingots.

The induction furnace solves this problem for them, for it is as easy to make a 2-ton charge in such a furnace as a 60-pound charge in a crucible. The saving in cost was easily demonstrated. Most steel makers agreed that the cost of melting 1 ton of crucible steel was from £7 to £8 ($34.07 to $38.93). In the induction furnace it required 800 to 850 units to a ton of steel and the cost in Sheffield would be from £2 to £2 2s. 6d. ($9.73 to $10.34) per ton. Two men and one boy would be able to run a furnace turning out 4 tons in twenty-four hours, so that the cost for labor should not exceed 7s. 6d. ($1.82) per ton.

The cost of lining, including repairs, should not exceed 2s. 6d. (51 cents) per ton; consequently the actual cost for melting 1 ton of steel should be well under £3 ($14.60); but if the cost was to run as high as 50 per cent of the cost of melting in crucibles the induction furnace had a great claim for the consideration of steel melters.

In addition to its freedom from injurious gases, which made it an exceptionally clean melting machine, the advantages to the men working it were considerable. There was no lifting of heavy crucibles, and

tapping was easily done by tilting the furnace. The lining was not easily destroyed, and with small repairs would last from seven to eight weeks. He hoped he had been able to show that the induction furnace was capable of reducing the cost of production of crucible steel.

With regard to quality the steel made at Gysinge, Sweden, has been proved to equal the best tool steel, but the quality naturally depended upon the skill of the metallurgist and the purity of the raw materials used. There was no reason whatever to doubt that the best crucible steel could be made with the induction furnace unless it was proved that the impurities acquired by the steel melted in coke or gas heated crucibles improved the quality of steel made in these crucibles.

VARIOUS ALLOYS MADE—NEW FURNACES.

Tungsten and chrome steels, as well as other steel alloys, could easily be made, and nickel steel had also been successfully turned out. Several furnaces of this type had already been erected in different parts of the world. At Gysinge, Sweden, a furnace of 175 kilowatts had been in successful operation for the past five years, and two others were being constructed at Guldsmedhythan. In Germany two furnaces were being operated and three were being constructed, two of which were 750 kilowatts. In Switzerland a furnace of 450 kilowatts was now being worked, while another of 200 kilowatts was soon to be started in Spain. In England a furnace of 200 kilowatts was now at work and others were in course of construction.

In a discussion that followed, the lecturer stated that a considerable part of each charge, about one-third, must be left in the furnace so as not to break the ring. In originally starting the furnace it was customary to pour in some molten scrap. Asked if the furnace had been used in melting nickel and the alloys forming German silver, the lecturer stated the higher the resistance the better the furnace would work; hence, as the resistance of nickel was high, he had no doubt it would melt well in the furnace. Brass had been successfully dealt with in the Kjellin furnace, and he had no doubt that nickel could be very economically treated by its use; there was no difficulty in melting even copper.

Manganese steel had been dealt with without trouble caused by its nonpermeability (to magnetism). Accidental failures of the current, if not prolonged beyond three or four hours, would not spoil a charge in the making. It had been proved feasible to make high steel with the furnace by placing charcoal in the crucible along with the metallic charge.

The discussion showed the opinion to be that the lecturer had demonstrated that high-grade steels could be made in the electric furnace, but not at present commercially. The question that arose, viz—Were the higher tempered steels made by this process equal or superior or worse than the best quality Sheffield crucible cast steel—is still open, and a committee of Sheffield experts has been appointed to investigate and compare the qualities of steel made by the Kjellin furnace with those of steel made by the standard processes.

NEW SMELTING PROCESS.

AUSTRALIAN INVENTION FOR REDUCING IRON ORES.

Consul Orlando H. Baker, of Sydney, submits the following claims of a new Australian method for reducing iron ores to iron or steel:

(1) Lesser cost of plant, which is estimated at one-fifth the cost of a blast furnace and converter of equal capacity. (2) A saving in fuel; the consumption being 12.46 hundredweight as against 21 hundredweight of the old indirect process. (3) Saving in fluxes; for every ton of pure metal produced under the old process 21 hundredweight of fluxes is required, and under the new process only 2½ hundredweight. (4) Saving in labor; under the new process the treatment of the ore from the feeding hopper to the ingot truck is absolutely automatic; the labor cost, therefore, is reduced to a minimum. (5) In the saving of time, which is still more pronounced; under the old system, from entry at the blast furnace to the discharge by converters, time occupied is from twenty-four to thirty hours; by the new direct process pure iron can be made in from two to four hours. Summarized, the saving in plant is 80 per cent and in cost of production of malleable steel or iron, 25 per cent.

Works are established in Melbourne for the purpose of demonstrating the facts set forth and samples of the treatment of iron from native ores have been submitted to the consul and will be sent by him to the address of any person who may desire to make an investigation.

MANUFACTURING FERRO-PHOSPHORUS.

USE OF ALLOYS IN STEEL FOR SPECIAL PURPOSES—TRADE SECRETS.

Consul D. W. Williams, of Cardiff, at the instance of an Ohio inquirer, has prepared the following observations on ferro-phosphorus:

Ferro-phosphorus is the name of an alloy used by steel manufacturers in order to make steel roll with a better finish. It appears that this alloy was first made by a Liverpool firm to supply an American demand. Their statement is in part as follows:

Some two or three years ago we were asked by some large steel manufacturers in America whether we could produce a quantity of ferro-phosphorus to contain as high a percentage of phosphorus as possible. After considerable experiments we succeeded in producing the alloy, and have since delivered several thousands of tons to the steel works in America and elsewhere. This ferro-phosphorus is useful in the basic steel process for enriching the slag. It has been found that in steel for sheet purposes, particularly tinplates, steel with phosphorus rolls with a better finish. It seems strange that phosphorus should actually be used in steel manufacture, whereas it was always previously considered a most objectionable element; but it is a fact that the presence of phosphorus in many steels is actually desirable, and it is only lately that these properties are becoming recognized. It has been noted that some rails high in phosphorus have been remarkable for their long life. It has also been found that under certain conditions carbon and phosphorus may replace each other, and that by replacing, lowering the carbon, and raising the phosphorus, the steel rolls with a better finish, and that the finished product from the rolls has a desirable surface (or skin) which is not found in lower phosphorus or higher carbon steel. We have produced ferro-phosphorus in two grades, 16 to 20 per cent phophorus and 20 to 25 per cent, and we give analyses as follows:

	P.	Fe.	Si.	C.	S.	Mn.
No. 1	24.00	73.30	2.47	0.03	0.08	0.10
No. 2	17.50	76.20	.42	.27	.....	5.75

This firm has produced alloys of phosphorus with manganese. It does not use the electrical process, but the special process used is a trade secret. This firm makes a specialty of various alloys for the use of steel manufacturers, but these alloys are not to be considered in the same class as pig iron with a high per cent of phosphorus or other element. Some of the alloys are ferro-chromium, ferro-silicon, ferro-boron, ferro-nickel, ferro-titanium, ferro-vanadium, together with doubles and other combinations. The firm naturally retains its secrets for its own use, and I have no means of securing them, especially when there are no works of the kind in my district.

Some of the alloys mentioned and others have been in use for many years. The Henderson process of making ferro-manganese is described in "Steel, its history, manufacture, and uses," by J. S. Jeans, published in 1880 by E. & F. N. Spon, 446 Broome street, New York. He employed carbon bricks for the bottom of his furnace. The patent passed into the hands of the Tharsis Company. Henderson performed his experiments at the St. Rollox Chemical Works, Glasgow.

There is a chapter devoted to these alloys in the volume, "The Metallurgy of Steel," by F. W. Halbord, published by Charles Griffin & Co., Exeter street, Strand, London. The same firm has published a book, Thomas Turner, on "The Metallurgy of Iron," which is one of the latest on the subject. The price is $3.89, and these books can be secured through any of the leading book importers.

In the way of pig metal there was iron with a seven per cent. element of phosphorus produced at one time in the Thomas furnaces at Seaton Carew, in Durham. It is claimed also by a leading writer that phosphoric pig metal is produced in large quantities from the manganiferous brown ores containing phosphorite at Ilside, in Hanover. Pig iron produced at old Hamden furnace, in Ohio, contained much phosphorus. A book written by William J. Keep and published at New York in 1902 by John Wiley & Sons, entitled "Cast Iron," contains an analysis of Hamden ore showing 4.59 per cent phosphorus and 3.16 per cent silicon. No native ores are manufactured into iron in Wales.

MINING.

CUBA.

MINERAL RESOURCES AND DEVELOPMENT IN ISLAND.

Consul Max J. Baehr writes as follows from Cienfuegos on the mining industry of Cuba:

The development of mining in Cuba may be said to date from 1830, when companies were formed for working the copper mines in the province of the Oriente. During the nineteen years following there were exported more than 600,000 tons, valued at over $48,000,000, and this only from two mines, the Consalidada and San José. Subsequent to the paralyzation caused by the first war of independence (1868), and as a result of the demand for mineral, the spirit of enterprise was stimulated, with the result that numerous copper and iron mines were discovered and worked in Oriente. Soon after manganese mines were discovered in the same province, and naphtha, gold, and copper in Santa Clara.

A revival of the industry took place immediately after peace was restored in 1899, considerable prospecting being done in the province of Pinar del Rio, where it appears that coal mines exist. It is also believed that asphalt and copper mines are to be found in the said province, and in Habana and Matanzas. There is not sufficient knowledge of the real mineral resources of the island to make an accurate estimate. The mineral resources are represented by the following products: Gold, silver, iron, copper, manganese, lead, asphalt, petroleum, naphtha, graphite, amianthus, asbestos, zinc, mercury, and coal.

These minerals are found in most of the provinces, but the richest district is the province of Oriente, followed in importance by Santa Clara, Camaguey, Pinar del Rio, Matanzas, and Habana.

EXTENT OF THE MINES.

The total number of mines surveyed, and the boundaries marked in the island up to December 31, 1905, was 386, containing 20,871 hectares (hectare = 2.471 acres), divided among the provinces, and classified as follows: Asphalt, 78; copper, 77; iron, 63; pit coal, 11; oxide of red lead, 1; manganese, 84; gold, 13; graphite, 2; lead, 5; zinc, 2; asbestos, 1; other kinds, 49; total, 386. The total area of the mining regions of Cuba is 56,395 acres, of which 44,586 belong to the province of Oriente, 4,288 acres to Santa Clara, 5,202 to Camaguey, 1,361 to Pinar del Rio, 444 to Matanzas, and 514 to Habana.

Of the above number of mines very few of iron, manganese, and copper, in the province of Oriente, are in operation. The others can be considered only as concessions waiting for funds for exploitation. The administration, according to the laws in force, can not compel the miners to operate their claims. The owner is in possession of his mine to perpetuity, and at his own will may work it or not. The only cause of forfeiture established by the law is the failure to pay the annual taxes.

The applicants for mines can, according to law, ask for one or several claims at the same time. A claim (pertenencia) is 300 meters (984 feet) long by 200 meters (656 feet) wide (6 hectares, or 14.8 acres), except when the mines are of iron, coal, anthracite, lignite, turf, asphalt, or bituminous clays, when the pertenencia is 500 meters (1,640 feet) long and 300 meters (984 feet) wide (15 hectares, or 37 acres).

The taxes to be paid to the Government are $5 yearly per hectare (2.471 acres), or $30 for each claim containing 6 hectares (14.8 acres), when the mines are of precious stones or metalliferous substances. In the other cases the tax is $2 per hectare, and therefore the total to be paid for the pertenencia may be $12 or $30, according to the surface of the claim.

OUTPUT OF MINES AND LAWS GOVERNING THEM.

The annual production of the mines actually operated, namely, 5 asphalt, 3 copper, 12 iron, 3 manganese, and 1 naphtha, give a total output valued at $1,446,000, as follows: Asphalt, $122,900; copper, approximately, $13,068; iron, $1,146,892; manganese, $163,140.

In the pamphlet published by the Bureau of Insular Affairs of the United States War Department, entitled "The Mining Law," is quoted the law in force, which is that of July 6, 1859, with the modifications introduced March 4, 1868. This is the law in Spain and was declared in force in this island by royal decree issued October 10, 1883. The rules and instructions of July 24, 1868, and the law containing the new basis on which all legislation on mines was to rest in future, is also contained in the pamphlet referred to. The number of mines declared in Cuba exceeds 700, and the area covered is 70,000 acres.

[The names of the Cuban mines, their owners, location, and output are given by Mr. Baehr, all of which information may be secured from the Bureau of Manufactures.]

INDIA.

MINING IN MADRAS STIMULATED—SHIPMENTS TO AMERICA.

Consul E. H. Dennison, of Bombay, reports an extraordinary development of the mining of manganese ore in India.

Nine or ten years ago India was not in the least interested in this ore; indeed it was not known that the country had any deposits that could be profitably worked, and the commercial community had not turned their attention to it. Coal and gold were recognized as paying industries, and attention was confined chiefly to these. About 1896, however, important discoveries of manganese ore were made in the Vigianagram district of the Madras Presidency, and its commercial value was at once recognized, and proceedings to work the deposits were begun immediately.

At the commencement it was necessary to ascertain to what markets the Indian ore could be sent. Inquiry proved that there was an unlimited demand, and as the Indian product was found to be of very high commercial quality, buyers in England, on the Continent, and in the United States were ready to take any quantity that India could produce, at prices that left a handsome margin of profit.

The year 1906 will show a good record for this industry. The United States took the larger share, the shipments going to the ports of Philadelphia and Baltimore. There were exported from the port of Bombay during the eleven months ending November 30, 1906, 310,446 tons of manganese ore as compared with 185,520 tons for the corresponding period in the preceding year.

AUSTRALIA.

RECENT ORE EXPORTS.

Consul-General John P. Bray, of Melbourne, reports a new departure in the export trade of Australia by the recent dispatch of 2,000 tons of iron ore from Port Pirie, South Australia, to England.

The ore is declared by experts to be the finest they have handled and that it is easily convertible into Bessemer and Harveyized steel. There are millions of tons at the Iron Knob, situated northwest of Spencers Gulf, in South Australia, from which it was taken, and where it can be obtained cheaply and easily by open-cut work. The Iron Knob mine constitutes one of the most extensive iron-ore deposits in Australia, and the ore is said to average 60 per cent of iron and equal to the best Swedish iron in high percentage of metal and its freedom from deleterious minerals. The Blythe Iron Company, in Tasmania, the ore from which is said to be of first quality, is also sending a consignment to England, and it is understood that the ore of both these mines would make a splendid smelting mixture when blended with lower-grade ore in England.

NITRATE IN CHILE.

CENTURIES OF SUPPLY SAID STILL TO EXIST.

Consul Alfred A. Winslow, of Valparaiso, reports that since so much is being said in the United States and Europe about the extent of the nitrate beds in Chile and that they would be exhausted within

twenty to twenty-five years, the matter has been investigated by Government officials of Chile, who report that there is enough for several centuries yet.

The fiscal delegate whose duty it is to look into this matter is reported by the Chilean Times to have said: "The State still possesses some 2,000,000 hectares [hectare, 2.47 acres] of nitrate grounds," but, for the sake of showing up the absurd character of the report in question, he takes the quantity at one-half, or say 1,000,000 hectares. "It may be safely estimated," he says, "that 1,000,000 hectares of ground contain ten thousand million Spanish quintals [Castile and Chile quintal, 101.41 pounds] of nitrate. So that if the yearly exportation of nitrate be put at the absurdly high figure of 80,000,000 quintals—it has never yet reached 40,000,000—there is sufficient nitrate in the supposed 1,000,000 hectares for one hundred and twenty-five years. If to these 1,000,000 hectares belonging to the State," says the delegate, "there be added the grounds belonging to private persons, the number of years of duration would be three or four times greater."

TIN SUPPLY.

LAST YEAR'S CONSUMPTION EXCEEDED PRODUCTION.

Partly estimating the deliveries for December, the total consumption of tin in the United States for 1906 was 42,800 tons, with 2,122 tons in stock at the close of the year. The shipments from Bolivia show an increase of 3,000 tons, from Cornwall an increase from 700 to 1,000 tons, and from Australia an increase of 1,000 tons, making the total European and American supply for the year about 93,550 tons. There were also shipments to other countries, so the world's production was probably in the neighborhood of 98,000 tons. The world's consumption was estimated at about 1,000 tons greater than production, or about 99,000 tons. The following table gives the European and United States tin supply in tons:

Year.	Total shipments from—			Banka sales in Holland.	Billiton sales in Java.	Production in Cornwall.	Grand total.
	The Straits Settlements.	Australia.	Bolivia.				
1906[a]	57,120	5,900	14,900	9,000	2,000	5,300	93,220
1905	57,000	4,900	11,900	9,625	2,625	4,500	90,550
1904	57,700	4,700	11,900	11,000	3,100	4,000	92,400
1903	52,100	4,500	9,800	14,590	3,600	4,500	89,000
1902	52,000	3,500	9,750	14,460	3,760	4,500	87,970
1901	50,400	3,500	7,600	14,500	4,250	4,500	84,750
1900	46,000	3,000	5,500	12,500	5,700	4,500	77,200
1899	44,300	3,250	4,300	9,350	5,125	4,200	70,525

[a] Estimated.

EUROPEAN TALC ROCK SUPPLY.

An article on talc rock from Consul-General R. P. Skinner at Marseille states that the chief sources of supply are in the Pyrenees and the Italian Alps. Shipments for the United States are most conveniently made via Bordeaux and Genoa. It is shipped in the form of rock, powdered talcum, talc stones for making gas burners, and tablets for use in metallurgical work. In addition to the ordinary uses

of talc rock and its products, it is consumed in considerable quantities in the form of powder as a soap adulterant, and in some regions as a preventative of damage by frost in the spring. Mr. Skinner names European producers and exporters of talc rock, which are filed for public reference at the Bureau of Manufactures.

GERMANY.

GERMANY ADOPTS REDUCED AND UNIFORM PASSENGER RATES.

Rate reforms on German railways are discussed by Consul Thomas H. Norton, of Chemnitz, as follows:

Fundamental reforms have been adopted which will not only insure a notable cheapening in the cost of travel, but will also bring about a much-desired uniformity in rates. It is expected that the new tariff will become operative on May 1, 1907, by the great Government lines of Germany which have agreed to the following rates: For first class, 2.683 cents per mile; for second class, 1.725 cents per mile; for third class, 1.15 cents per mile; for fourth class, 0.766 cents per mile. All reductions on return tickets are discontinued. Small extra charges are made on express trains. Reduced rates are allowed for commuters, excursions, etc. The Hungarian "zone" principle has been introduced in connection with the baggage charges.

The prospective high unit of 441 pounds for baggage, with the exceedingly low rates, will be a welcome innovation for American tourists in Germany, as well as for the numerous commercial travelers. Complaints will be made, however, in some sections of Germany, where at present a limited amount of baggage is allowed free of charge. The establishment of the new rate scheduled by the Government lines will undoubtedly force the private lines to eventually adopt the same rates. The whole project illustrates the tendency toward uniformity and centralization, which mark all economic movements of a general character throughout the Empire.

LIABILITY FOR DELAY.

Consul-General A. M. Thackara, of Berlin, in response to a Virginia inquiry as to whether German railroads are penalized for unduly delaying freight, quotes the following official regulation of the Empire: "A railway is responsible for damage resulting from not delivering within the right time, unless such delay arises from an event not occasioned by the railway, and which was not its duty to prevent."

SPAIN.

EXCESSIVE RATES ON LINES AROUND SEVILLE.

Consul Louis J. Rosenberg, of Seville, reports a great deal of complaint among local shippers against the excessive tariff rates of the railways in that part of Spain.

The Revista Commercial states that "the freight charges on 1 ton of grain from the province of Cordova or Jaen to Cadiz costs as much, and from certain places more, than shipping the same merchandise from Cadiz to Buenos Aires, South America, to which the rate is 30 pesetas, or $5.79, or to California $5.60; consequently the merchandise can go around the world for the same price as that charged by

the Spanish lines from Andujar to Seville. Argentine corn or wheat from California may be shipped to Seville at the same cost of transportation as between the Spanish towns of Villar del Rio to Marmolejo."

The statement is made among commercial interests that a reduction of freight charges on Spanish lines will have a tendency to increase traffic.

ITALY.

GOVERNMENT REDUCES RATES FOR EXPORT TRADE.

Consul James E. Dunning, in a report from Milan, says that, by a decree of the Government intended to favor Italian export commerce, a new table of freight rates has been established for all the state railway lines.

Under the decree the existing rates will be modified as follows for shipments from the interior to the ports of Ancona, Brindisi, Genoa, Leghorn, Naples, and Venice for export over sea: Five per cent for hauls less than 33 miles, 10 per cent for less than 66 miles, 15 per cent for less than 100 miles; 25 per cent for less than 133 miles, with a minimum tax of 0.00032 of a cent per ton kilometer (approximately two-thirds of a mile).

The state railways of Italy are now having built for early delivery 7,000 freight cars and 100 locomotives. Most of the engines are being constructed in Italy, but a large order for the cars was placed in the United States, which is also supplying, under a contract of last year, a number of Baldwin locomotives to the Government at Rome. In the meantime three new types of machines are in experimental service on the state lines, with the intention of increasing the number of loaded cars in the average train, both passenger and freight.

The Mediterranean Line, one of the two trunk systems of steam railway in Italy, is seriously at work on the plans for the continuation of the electric road now running from Milan north to Varese and Porto Ceresio, about 50 miles, to Laveno, on Lake Maggiore, via Ponte Tresa, on the Lake of Lugano. At Laveno this extension, which will be operated with the same high-speed express electric service now in use between Milan and Varese and Porto Ceresio, will connect with the existing steam branch to points north, including Luino and Bellinzona on the St. Gothard main line; while at Ponte Tresa another line, now projected, will start direct for Lugano, to connect there with the main line over the St. Gothard pass. If the plan goes according to present indications, the new line—Milan, Varese, Ponte Tresa-Lugano—will be in operation by the end of 1908, thus affording another direct route to Lugano and tapping the richest industrial section of Lombardy. Lugano's importance is rapidly growing, both as a resort and as a business center.

CHILE.

CONSTRUCTION CONTRACT WITH A BELGIAN SYNDICATE.

Mr. John Hicks, American minister to Chile, under date of November 24, 1906, reports that the Government of Chile has closed an important contract with a Belgian syndicate for the construction of a portion of what is known as the "Longitudinal Railway," extending from Valparaiso northwardly along the coast. The minister says:

It must be remembered that at present, with the exception of a few very insignificant lines, all the railways in Chile are owned and operated by the Government. This new line is said to be a departure from this system, at least for the present, and the Government looks upon it as an experiment which may lead to a change in the management of the other roads.

As I get it from good authority, a syndicate formed last year in Brussels with a capital stock of 100,000,000 francs has had a corps of engineers in the country for the past five months examining the route, making plans and specifications, and preparing bids. The result is that the proposition of the syndicate has been accepted by the Government and is now before Congress for its approval. From Valparaiso north to Copiapo, a distance of 700 kilometers, the road is to be constructed. For a period of fifty years, dating from commencement of the work, the syndicate will own and operate the road, and at the end of that time the Government shall have the right to purchase it at an appraised valuation. Funds for construction and operation of the railway are to be furnished by the syndicate, and Chile is not to be at any expense whatever, except that on the company's expenditures the Chilean Government will guarantee an annual interest fee of 5 per cent. Should the net earnings of the road exceed 5 per cent the excess up to 7 per cent is to be equally divided between the syndicate and the Government. At the end of fifty years the railway and equipment is to be transferred to the Government, should it so desire, but until that date it is to be the property of the syndicate and will be managed in all respects as private property.

It is the difference of management that appeals to the Government and people of Chile. The Government railways now are not self-supporting, but on the contrary are an immense expense every year, the annual deficit amounting to several millions of dollars. There is a strong faction in favor of selling or leasing the railways, on the ground that good private management would make them not only self-supporting, but extremely profitable to the Government. The experiment with this longitudinal line, therefore, if it is built as planned, will be looked upon as an object lesson, and may have an important effect upon the future of the State railways.

It is understood that work is to be commenced as soon as the project receives the approval of the Congress, and there seems to be no doubt that it will be approved by that body.

THE TARIFF.

RATE CHANGES AND CUSTOMS REGULATIONS.

CHINA.

INTERNATIONAL AGREEMENT—PORTS TO BE OPENED.

The following report was written by Special Agent W. A. Graham Clark, from Newchwang, November 27, and furnishes information regarding the establishment of custom-houses at Dalny and other points:

I have learned from an official in position to be well informed that the Chinese Government has definitely declared that a custom-house will be established at Dalny by April 1, 1907. The reason given for not establishing it earlier is that time is required to perfect the necessary arrangements and that most of the northern ports, soon becoming ice-bound, the shipping trade would cease for the winter. Russia has also given definite assurance that she will not oppose customs stations being established on the northern frontier and that simultaneously with their establishment at Dalny customs stations will also be established at the two points where the Siberian railway crosses the Manchurian frontier.

The Japanese have all along contended that they were willing for custom-houses to be established at Dalny if they were also established on the northern frontier, but that they would not agree for Russian goods to come in by rail free and Japanese goods have to come by ship and pay duty. The establishment of custom-houses at other entrances to Manchuria will help the port of Newchwang, and incidentally the sale of American goods, as this is the port through which the great bulk of American goods are introduced.

JAPANESE IMPROVING THE INTERVAL.

The plan to establish the customs at Dalny, April 1, gives Japanese merchants four months in which to rush in their goods duty free, and with 81 out of their 85 mills running night and day it is assumed that they will take full advantage of these months of grace. Newchwang will be icebound within a month; also Vladivostok, but Dalny is open all the winter. The report was sent out from Tokyo in June that the five largest weave mills in Japan had formed an association to push the sale of their goods in Manchuria and that 1,000 bales would be shipped each month and be handled through the Mitsui Bussan Kaisha. Agents of this company in Manchuria inform me that for the last two months this amount was raised to between 2,000 and 3,000 bales a month, which shows that they are making good use of the time left to them of free port advantages.

INDIA.

FREE OF DUTY REIMPORT GOODS.

The government of India have accepted a suggestion made by the Bombay government that the period within which articles of foreign manufacture or production may, under certain conditions, be reimported into British India by land free of duty, should be reduced from three years to six months, states the London Times. At the same time it has been notified that there will be similar exemption of duty on all goods manufactured or produced in British India which are exported into foreign territory and subsequently imported into India by land, with certain specified exceptions, provided the period of their exportation has not exceeded six months.

IMPORTATION OF COCAINE RESTRICTED.

Consul-General William H. Michael, of Calcutta, advises that the government of India has prohibited the bringing in of cocaine by means of the post, and has restricted its importation by any other means to cases in which it is imported by persons, or by their authorized agents, who have been especially permitted to import the drug by a local government or administration. In consequence of this order the government has also empowered certain postal officials to search for any cocaine in course of transmission by post and to deliver all such to the nearest excise officer.

ITALY.

MATCHES, GARNETS, COCOANUT OIL, AND UMBRELLAS.

Consul J. E. Dunning advices that the Milan custom-house has received information of the following Italian tariff changes:

By the royal decree of September 1, 1906, modifying the tariff lists, the duty on matches with "bengal fire" (feu de bangale), is reduced from $34.74 per quintal of 220.46 pounds (as levied until now against pyrotechnic powders and other explosive substances), to $2.90 per quintal, being included in the classification of stearin matches.

Garnets, classified until now as finished precious stones, are divided into two categories—garnets fine and garnets ordinary. Fine garnets will remain under the old tariff; but ordinary stones are passed to the classification of "Other precious stones" which are under the tax: Worked precious stones, agates, opals, etc., $1.74 per kilogram (2⅛ pounds); finished goods, 29 cents per kilogram.

Cocoanut oil (cocoa oil), taxed until now in the category with palm oil, at 77 cents per quintal, is divided into two classifications: (*a*) Oil of cocoa, purified for food uses, $5.79 per quintal (the same tax as that on artificial butter); and (*b*), oil of cocoa, not purified, 77 cents per quintal—the old rate.

A petition has been presented to Parliament by Italian makers of umbrellas against the increase in the tariff rate on umbrella mountings and frames from $5.79 to $7.72 per quintal, on the ground that the advance is not necessary and will do harm to the trade. Germany and Belgium are the countries most affected in the matter.

REGULATIONS FOR IMPORTATION OF MEDICINES.

Consul-General Hector de Castro, of Rome, advises that no medicinal specialties may be introduced or sold in Italy except by previous

approval of the superior board of health. For the guidance, therefore, of all interested parties and in order to avoid delay and damage in the granting of their applications, the following general instructions are announced as to the method for obtaining such approval:

The applications must be directed to the ministry of the interior and must indicate the formula, quality, and quantity of the medicinal product, and the institute or the laboratory where the same was prepared. They must also give a general idea of the method of manufacturing. The formula of composition or the indication of the principal components in their respective quantity must conform to the provision of article 27 of the law on public health and hygiene now in force, and must be reproduced upon the package containing the product imported and in the notices to the public.

The therapeutic benefits attributed to the product must also be specified in the application, and to this effect it is well to bear in mind that the said article 27 of the sanitary law applicable in every sense also to the foreign products to be sold in the Kingdom prohibits absolutely the attributing to medicinal substances and preparations virtues and special therapeutic qualities other than those that they really have and pertaining to their components.

It will lastly be necessary that the applications contain an explicit declaration to the effect that the products of importation have been manufactured by authorized persons, institutions, or laboratories, and in accordance with the existing laws of the country of production. Should the law of that country prescribe that prior to the sale of the determined article a special control is required a declaration that the same was observed with favorable results must be produced.

A sample of the medicinal specialty must be presented with the application, and it would be advisable to furnish also all the notices, acts, and certificates which might place the superior board of health in better condition to promptly and with full knowledge express its decision. And as the superior board in the interest of public health shall have to ascertain if the laws of the country of origin have been observed in regard to the medicinal products imported, it will be advisable that the interested importers furnish in the most satisfactory manner the proof of the observance of such laws.

ARGENTINA.

INSPECTION OF IMPORTED MEATS.

Consul-General Alban G. Snyder, of Buenos Aires, reports that a decree has just been issued by the Argentine ministry of agriculture providing that imported hog products, such as ham, bacon, etc., be subjected to as severe an inspection as those produced in Argentina. Mr. Snyder continues:

It is claimed that at present even the fact of the goods being shipped from a certain country is no security that they were manufactured in that country, and that up to the present time foreign meat stuffs have escaped inspection altogether upon entering Argentina, and it is this grave oversight that the present law is expected to remedy. The law went into effect on January 1, and from that time no goods can enter the country unless accompanied by certificates, legalized by the Argentine consul at the port of shipment, stating that the goods are manufactured and inspected in the same manner as is required in the Argentine. So far as I can ascertain a brief abstract of the certificates to be required is as follows:

(1) A certificate from a Government veterinary surgeon that he made an examination of the animal from which the article was made, at the time it was killed, and found it free from disease.

(2) A certificate from a Government inspector that same article was manufactured under proper sanitary conditions.

(3) Every article must bear a fixed brand in order that the inspectors here may be able to identify said imported article with the certificates.

Goods not accompanied by such certificates will be refused admittance, and those bearing said certificates will be examined upon

arrival by a qualified inspector as to their condition when landed here. It is claimed that the minister has recently ordered a rigid inspection of all meat manufactories, and thinks that all foreign goods should receive similar treatment, and that while the tendency of the decree may be to bar the importation of such articles for a time, owing to the fact, that as far as known, no country from which the Argentine has drawn this class of goods provides for government inspection of animals slaughtered, yet if this trade is worth having it is worth going after right, and this will serve in the end to prevent anything from being put on the market which would be condemned if produced under like circumstances in this country.

COLOMBIA.

ADDITIONAL TAX PLACED ON FLOUR FROM FOREIGN WHEAT.

Consul P. P. Demers, of Barranquilla, in writing about Colombia's general policy of protection for native products, states that the Government has now imposed on the departments of Bolivar, Atlantico, and Magdalena (coast departments) the supplemental duty of 8 cents per kilogram (2.2 pounds) on flour made from foreign wheat, already applied to foreign flour sent to the interior of the country.

The Colombian duty on imported flour has been 8 cents per kilogram for the coast departments, with an additional 8 cents for ports above Puerto Berrio on the Magdalena River. The object of the last decree is to treat the flour made from foreign wheat as foreign flour, so far as the supplemental duty of 8 cents per kilogram is concerned, if such flour is sent out of the coast departments, and thereby further encourage wheat growing in the interior. This will hurt American wheat trade with Colombia. Flour milling is a new industry, and so far the output of the coast mills has not extended beyond local demands; but the new impost will surely prevent the enlargement of the actual plants and restrict their production of flour to the local market exclusively, for the tremendous expenses involved in transporting native wheat makes it entirely out of the power of the coast millers to operate on such and compete with the mills of the interior. No wheat is grown on the coast.

American flour trade with Colombia is now at a perfect standstill. Not a single sack has been imported for months, and there is no prospect of its import being resumed in the immediate future. Flour has always formed a good part of the trade of the United States with Colombia, and it is to be regretted that for 1906 America's share in supplying Colombian imports will probably show much below the former mark of 34 per cent.

BRAZIL.

TWENTY PER CENT PREFERENTIAL CONTINUED.

The Department of State is in receipt of a telegram from Ambassador Griscom, of Rio de Janeiro, dated January 2, 1907, stating that the Brazilian Congress, which expired December 30, authorized the continuance of the 20 per cent preferential tariff reduction in favor of certain American products. The preferential continues unchanged, except that linotypes and cash registers are added under the classification of typewriters.

In accordance with similar authorization the Brazilian Government proclaimed on July 4, 1906, a 20 per cent tariff reduction to take effect July 1 and terminating December 31, 1906, in favor of the following goods imported from the United States:

"Flour, condensed milk, types of rubber, watches and clocks, inks (except for writing), varnishes, typewriters, refrigerators, scales, pianos, and windmills."

This is the list referred to in Ambassador Griscom's telegram of January 2.

VENEZUELA.

CLASSIFICATION OF CERTAIN BOTTLES.

Consul E. H. Plumacher, of Maracaibo, reports that the President of Venezuela has issued a decree placing Thermas champagna bottles in the fifth class of the tariff, which prescribes a duty of 1.25 bolivars per kilo upon merchandise of that class (1 bolivar = 19.3 cents, 1 kilo = 2.2 pounds). The bottles mentioned have not been heretofore classified.

RECLASSIFICATION OF NAPHTHA.

Consul Plumacher further reports a decree has been proclaimed by the Government of Venezuela that from the 19th of November naphtha shall be classified in the first class instead of the fourth class of the tariff, the effect of which is a reduction from 0.75 bolivar per kilo to 0.05 bolivar per kilo.

COSTA RICA.

CEMENT MADE WHOLLY DUTY FREE.

Consul J. C. Caldwell, of San José, advises that by an executive decree of Costa Rica cement is to be free from import duties and wharfage dues after January 1, 1907.

Heretofore cement intended for use in the ports of the Republic has been exempt by special law, and as some two-thirds of cement imported has been for use at the ports, and the duties collected on the remaining one-third amounted to but a small sum, it is considered an unfair discrimination against interior points to continue these duties. Also, the free importation of cement will reduce somewhat the cost of construction of buildings and assist the industries which are starting up on a small scale of making cement bricks, pipes, and building ornaments. For these and various other reasons, mainly assistance to agriculture in the making and maintenance of floors (patios) for drying coffee, the exemption is decreed.

HAITI.

THE SURTAX ON IMPORTS

In the report of Minister H. W. Furniss on a new customs law published in Daily Reports, October 17, 1906 (No. 2694), the fraction ⅛ was erroneously printed 4s. 8d. The paragraph in which the error occurred should have read:

The surtax of 25 per cent gold in import duties is and remains suppressed. If the Government should feel the necessity thereof, it is authorized by a simple decree to reestablish on the foodstuffs the old duties as they were prior to the present law. In that case the ⅛ of

import duties appropriated to (withdrawal of) paper money, paid in gold, shall be paid over to the withdrawal fund and in other cities to the treasury service for the account of the withdrawal. These amounts shall be sold for paper and the proceeds burned.

ST. THOMAS

INCREASE IN CUSTOMS RATES.

Vice-Consul Anders E. Schröder, writing from St. Thomas, W. I., November 28, reports that, commencing with the 1st of April, 1907, the duty on all imports to St. Thomas and St. Jan will be raised from the present rate of 3 per cent to 6 per cent ad valorem.

AUSTRALIA.

DEFINITE ACTION POSTPONED UNTIL CONFERENCE IN LONDON.

Consul-General John P. Bray, of Melbourne, now advises as follows concerning the Australian trade-preference bill which had passed Parliament and had been reserved for the royal assent, owing to the possibility of it being in conflict with certain treaties between England and other countries:

The prime minister of Australia has requested the English authorities to postpone final action in regard to the bill until after the conference of premiers of the dependencies of England to be held in London in April next, and at which the prime minister will attend, and before which, it is understood, the position of the colonies respecting treaties between England and other countries will be brought up for discussion.

NEW ZEALAND AND CANADA.

The following newspaper dispatch from Wellington reports the views of Sir Joseph Ward the premier of New Zealand in regard to preferential trade between New Zealand and Canada:

Speaking of chambers of commerce at the Christchurch Exhibition, Sir Joseph Ward said his idea was to constitute practically a board of trade for the colony. He suggested that the chambers of commerce take steps to organize something in that direction. Referring to the Vancouver mail service, he said he hoped the Canadian commissioners would fmpress upon Canada that New Zealand was quite willing to extend the hand of mail fellowship. New Zealand also required a mail service across America. It would be a bad day for England if any of her dependencies declined the trade of other countries because they did not fly the same flag. Preferential trade within the Imperial zone was quite right and proper, but they must not allow the impression to get abroad that trade was to be confined to their own territories alone. New Zealand wished to cement trade with Canada more than with America.

TEXTILES.

THE SILK INDUSTRY.

FRANCE.

REVIVAL IN THE ARTIFICIAL PRODUCT.

According to Consul J. C. Covert, of Lyon, the uses of soie de chardonnet or artificial silk are increasing. He writes:

Several manufacturers in and around Lyon are employing it in the manufacture of light goods for summer wear, and one company informs me that the exports to England, Belgium, and the United States are holding their own, and in some countries are marked by an important augmentation. It is being used in some factories in combination with the natural silk. In mousseline de soie the warp is made of natural silk and the woof of chardonnet. In some houses a thread of chardonnet and a thread of natural silk are passed alternately on two different shuttles.

A great difficulty that the manufacturers of goods from artificial silk have had to contend with is that the stuff could not stand exposure to dampness or the least rain. I am told that in blending the artificial with the natural article this difficulty is very largely overcome. It is also said that by combining a thread of chardonnet with a thread of natural silk the former adds a very desirable brilliancy to the finished material which adds to its value as used in laces, passementerie, mousselines, ribbons, gauzes, and anything used in trimmings.

A new article called chifolineis, a species of goods manufactured from crin de chardonnet, is used very largely in the trimmings of ladies' hats. All the milliners in France use it, and one firm in Lyon has orders for it for six months ahead.

The works in Besancon, which had dismissed many of their employees on account of a period of depression, have now been working on full time for a month or more, and giving employment to 1,500 to 2,000 men. They export their goods to all the countries in Europe except Germany, where an arrangement has been entered into with a German company by which the French company will not invade their market. The stock in this French company, which had fallen very low, has been marked by a steady rise, and is now quoted at 800 per cent above par. It is reported in Lyon that an effort to establish a mill in the United States for the manufacture of chardonnet silk has been abandoned on account of the high wages paid to American workingmen. The manufacturers here say that it is more profitable to pay the 30 per cent duty than to put up works there and pay the high wages to American workingmen.

JAPAN.

GROWTH OF DIRECT EXPORT TRADE—FOREIGN FIRMS LAGGING.

Vice-Consul-General E. G. Babbitt, of Yokohama, reports that according to the private reports made by the Yokohama Foreign Board of Trade and other interested parties, the direct export trade of raw silk, the most important export commodity of Japan, is both rapidly increasing and changing from foreign firms in that country to Japanese firms.

The following figures show the business done by Japanese and foreign firms in Yokohama each month from January to October last, exclusive of waste silk:

Month.	Sold to foreign firms.	Exported by Japanese.	Month.	Sold to foreign firms.	Exported by Japanese.
	Bales.	*Bales.*		*Bales.*	*Bales.*
January	4,887½	8,223½	July	8,856½	3,713½
February	9,667	4,022	August	12,255	6,849½
March	6,508½	6,630½	September	12,204	6,770½
April	2,804	3,126	October	18,444½	12,805½
May	4,861½	3,191½			
June	542	2,266½	Total	81,030½	57,589

The total export of silk for the ten months amounted to 138,619½ bales, the proportion of the shipments made by foreign firms to those made by Japanese being 58.5 to 41.5.

Regarding the quantity dealt in by foreign and Japanese firms this order has now been reversed. Until a few years ago out of 25 foreign firms dealing in silk, a Swiss firm occupied first rank on the list of shipments. Now, however, a Japanese firm occupies first rank, and another Japanese firm the second rank, the Swiss firm falling to third position. The Japanese raw silk exporting firms are only four in number, and yet the shipments made by these four firms are only a little less than those made by 25 foreign firms. Only five years ago the Japanese shipped 26,861½ bales against 89,141 by foreign firms, the proportion being 23.2 to 76.8. From this it may be seen that the shipments by foreigners fell off by 8,110½ bales in five years, while those of the Japanese increased by 30,727½ bales. The proportion of the shipments by Japanese thus rose from 23.2 to 41.5, while the figures for foreign firms fell from 76.8 to 58.5. Since 1902 no distinction has been made in the statistics of the finance department between the amount of trade done by Japanese and foreigners, and consequently the latest comparative statistics available are those for 1902. The total value of exports in the ten years to 1902, rose from $15,976,108, to $48,062,637, and the value of direct exports through the hands of Japanese firms rose from $1,272,267 to $11,136,108, a phenomenal increase.

GERMANY.

TRADE CONDITIONS IN LEADING FACTORY CENTER.

Consul T. R. Wallace, writing from Crefeld, furnishes the following interesting facts concerning the conditions in that important German textile center:

The consumption of spun silk during 1905 was very large, and the production hardly met the increased demand. This was more noticeable as both Europe and America appeared as heavy buyers. The schappe spinners derived no advantage from this further than having steady employment. A slight advance was finally secured, although it was difficult to supply the demand. The reason for not securing better prices under the conditions is explained by the fact that two of the leading spinneries were satisfied with the increase from 9 to 12 cents a pound, and others were compelled to do likewise. The consumption of spun silk in the silk and ribbon factories continues to decrease; mercerized cotton is being used more in some branches, especially in the silk-tie industry.

CHANGES IN VELVETS.

The velvet industry began the year under most favorable conditions. The manufacturers took advantage of the low prices for raw material by making extended contracts for delivery. It was hoped to maintain existing prices, but a number of firms became uneasy at the attitude assumed by the wholesale dealers and lowered the prices to insure orders for themselves. This induced a price-cutting combat greater than ever before. The result was orders in abundance at low prices, but the cost of raw material increased about 10 per cent, and an increase in the manufacturer's price became a necessity.

The report of the chamber of commerce upon the velvet industry says that a large portion of its success in this district is due to the local finishing concerns whose highly cultivated technic in pressing and printing gave new forms to the old simple velvet articles. Their firmly conducted organization insured its members steady prices and stood by them for new furnishings and improvements in this work.

The report further states that for a long time a lack of workman existed in consequence of the irregular employment in this business in former years. The workmen had engaged in other industries and the younger generation held aloof from velvet weaving. To create a change here lies in the interest of all concerned, and the commission men can, through timely orders, contribute their share in the relief.

The introduction of the double-spool system has materially increased the earnings of the workmen, so that when greater steadiness be guaranteed large numbers should again turn to velvet weaving.

The velvet-ribbon branch showed no improvement over the previous year. From time to time a strong demand existed for colored ribbons, while the demand for black remained very weak.

LOSS OF SILK GOODS MARKETS.

The silk-goods industry showed an improvement as compared with the two or three previous years. The tie-silk trade is the only branch of importance to the United States, the sale of dress goods having fallen off entirely. The growth of the silk industry in the United States is clearly indicated by the decline in the export trade from Crefeld. Article after article has been eliminated from the list as the years pass, and all that remains of the immense export business formerly done in silk goods with the United States worthy of mention is the tie-silk trade, and exports in this branch are beginning to decline.

The reason assigned by the chamber of commerce for the loss of trade with England in tie silks is of interest. It says that this loss is

accounted for in part from the fact that the Swiss manufacturers were able to produce the silk goods formerly made at Crefeld by one workman attending two looms, while the lower Rhenish manufacturers were hindered through the action of the workmen's union from introducing the double-loom system, and consequently in the saving of wages the Swiss manufacturer could sell cheaper.

COTTON MANUFACTURES.

GREECE.

A STUDY OF CLOTH TRADE IN THE LEVANT.

Consul-General George Horton, of Athens, furnishes a condensation of a letter recently received by him from a member of a Greek mercantile firm of New York City, who has been making a tour of the Levant with samples of cotton goods, representing several houses besides his own, to make a thorough investigation of the cotton-goods business in Greece. Mr. Horton quotes:

The fact is that the Levant market is supplied with English, French, Italian, Austrian, and German goods. I have visited Athens, Piræus, Corinth, Tripolis, Calamata, Patras, and Volo, and as far as I have been able to ascertain in no part of Greece, with the exception of Volo, are any American cotton goods sold.

In all the cities visited I have found a certain brown sheeting manufactured in Manchester, England, known as the 'Howell' cloth, from 29 to 32 inches wide. The samples I have obtained of this cloth run in inches as follows: 29, 29¼, 30, 31, 31¼, 31½, and 32¾.

This cloth is sold in pieces of 24 yards each, with a colored border at the end, at prices ranging according to quality and the market fluctuations viz: 4s. 6d., 5s. 9d., 5s. 10d, 6s. 6d., 6s. 10d., 6s. 8d., 7s., 7s. 3d., and 8s. (shillings=24¼ cents, pence=2 cents) per piece, f. o. b. Manchester, with a discount of from 3 to 5 per cent, with extra charges for packing. Unfortunately such cloth is not manufactured at present in the United States. Upon my return I will strongly recommend the mills' agents to consider the large consumption in Greece, which amounts to about a million yards a year. This cloth is sold throughout Greece for the manufacture of underclothes and fustanellas.

Volo imports the following American cotton goods: In brown sheetings the "Cabot A," in brown drills the "Lyman H," and a little in blue and black. These are old brands and well known. I have seen various imitations of "Cabot A," from England and Italy particularly, which have not met with much success. English drills are considered to have a better finish than American ones. A firm of Piræus and certain mills in Syra are manufacturing imitations of "Cabot A," which sell successfully in the country.

In Athens I found two dry-goods houses which buy "Cabot A" and sell it in transit at Piræus to Volo and the Turkish islands.

ORDERS SECURED—MARKET CONDITIONS.

I have been able to get a trial order from one of these on a 36-inch brown sheeting of the same quality as "Cabot A" at a lower price. Should the cloth be equal in quality to the sample this Athens firm

hopes to do a good business in it. From another Athens merchant I have taken a trial order in brown drills, percales, ginghams, etc. In Volo, also, I succeeded in placing a few orders of various brands of brown sheetings 36 inches wide, and if the quality of the goods proves equal to the samples it is likely business will result.

My samples of ginghams, plaids, and bleached sheetings were of a quality much inferior to that required by the Grecian market. Those imported here, moreover, are wider and in better patterns, styles, designs, etc. American percales are found more expensive than European. Blankets are imported from Europe of better grade and heavier. Mottled flannels are used, but of different designs. Double and plain denims have not interested the Grecian market. Cotton worsteds are used in large quantities, imported mostly from Italy in double width, viz, 45 to 56 inches. The same are manufactured extensively in Piræus and Syra. Cotton flannels, bleached or unbleached, are not used.

In regard to American yarns, I regret to say that prices are much higher than either English or Italian. The latter especially have a great sale and compete successfully with the English. One house alone in Athens buys Italian yarns yearly to the value of 300,000 francs (franc=19.3 cents), and English yarns to the value of 100,000 francs. If American yarns could be sold at a figure somewhat lower than Italian—say 2 per cent—and be put up in packages of 10 pounds each, instead of in bales of 400 pounds, there would be a chance of doing a good business in them.

American goods suffer from the following handicaps: First, higher prices, both in lower and better goods; second, shortness of distance European goods have to travel; third, facilities European manufacturers allow for payment, viz, three to six months, and sometimes more.

KEEN COMPETITION.

The consul-general adds: The letter mentions also the nonexistence of direct communication between New York and Greece. At present, however, there are steamers making regular sailings between the United States and Greece.

I should add that this market is very keenly competed for by travelers for the various European business houses, some of whom keep men permanently on the spot. As an example of this I may mention a German agent for sewing threads, who has been devoting months to ousting English brands and supplanting them with those which he represents, with results very satisfactory to himself.

I have been greatly interested in this trip of the New York merchant, as it has led me to believe that the only way for American merchants to break into the Levant is to send the right man or men here to study the market, to push their goods persistently and intelligently, and to combat the misrepresentations which are continually being made by interested parties concerning American goods and manufacturers.

Imitation is one of the chief difficulties with which American goods have to contend. For example: American leather is largely used in Greece in the manufacture of shoes. An English agent recently informed me that a firm which he represents had been studying American processes, and that he hoped soon to be able to put a British imitation on the market that would take the place of the genuine American article.

TRADE-MARKS.

PRIVILEGES AND RESTRICTIONS.

FRANCE.

OILS AND WINES ADULTERATED AND MISBRANDED.

Consul D. I. Murphy, of Bordeaux, furnishes a report containing facts regarding the adulteration and misbranding of oils and wines received in the United States, and of the extensive use of fictitious names in connection with importations from France. The consul writes:

The use of fictitious names, or "contremarques," is common throughout France. The law of June 23, 1857, protects the French manufacturer in their use and authorizes him to employ such trade-marks as he pleases, provided he has them duly registered at the Tribunal of Commerce in the district where his business is carried on. It is a common thing for manufacturers and exporters to label olive oil of secondary or inferior quality with fictitious names or trade-marks, reserving their own proper names for their highest grade of goods. Many large American concerns order oil from the packers here with directions for special labels bearing some particular names or trade-marks of their own.

USE OF FICTITIOUS NAMES.

While immense quantities of olive oil are shipped to the United States under fictitious names, it must not be presumed that all, or any considerable portion of it, is adulterated. Many of the names herein given are well known to the trade and the public generally, being the trade-marks of reputable houses. Some of the fictitious names bear a somewhat suspicious resemblance to the names of well-known houses, and their use may be intended to mislead. Two of them * * * might easily be mistaken for * * * , one of the oldest and most reputable concerns in all France. I have the assurances of the packers, however, that these misleading names are insisted upon by customers in the United States.

There are probably other fictitious names which I have not yet been able to discover, for one or two of the exporters failed to respond to repeated requests for their several trade names. I have made an exhaustive search of the archives of the Tribunal of Commerce but have obtained no additional light on the subject. [A list of the fictitious names, with the houses using them, is furnished by the consul and is on file at the Bureau of Manufactures.]

EXPORTERS OF OLIVE OIL.

Aside from those largely dealing in oils many of the packers of canned and preserved goods export olive oil with trade-marks of their

own. Only a few of them, however, really refine or manufacture, their orders being filled by the large oil packers. In addition to these many of the wine-exporting houses supply their trade in the United States with olive oils, each particular concern having its own trade-mark. As in the case of the shippers of canned and preserved goods, only one or two of them manufacture or refine. They, too, have the large oil packers supply their orders.

What has been said regarding exporters of olive oil using their own proper names only for their goods of first quality holds true of the packers of preserved fruits and vegetables and of the wine merchants. It would require a volume to give the fictitious names used by them, the records of the Tribunal of Commerce showing hundreds and hundreds of registrations, and it would require another volume to contain all the names insisted upon by American dealers.

MISBRANDING AND ADULTERATION OF WINE.

That there is adulteration of wine goes without saying, but to state the extent of or point out the parties engaged in it is a difficult proposition. It is known that certain unprincipled dealers or brokers buy up the entire output of some of the vineyards where good wine is produced, and with the addition of alcohol and water multiply the output many times over. On this subject in a recently published statement Mr. Guillaume Chastenet, one of the members of the "Groupe Viticole" in the French Assembly, declared the "overproduction of wine from which the wine districts of France are suffering is mostly due to fraud." He further declared that it might be supposed the great wine crop of 1905 would make fraud a poor paying business, but such was not the case. The growers were suffering because of this fraudulent increase in the wine crop, and the manufacture of artificial wines had developed prodigiously. "To-day," said Mr. Chastenet, "the consumption and production of wines might balance if it were not for the fifteen or twenty millions of hectoliters (396,255,000 gallons to 528,340,000 gallons) of sugar wines, or manufactured wines of all kinds, made with the lees and sulphuric acid." Examination of the matter leads me to believe with Mr. Chastenet that among the growers there is practically no fraud. The trouble is with certain dealers or brokers who practice what is called "mouillage" or adulteration with water and alcohol.

OFFICIAL DECLARATION AGAINST FRAUD.

Quite recently Mr. Guyot-Dessaigne, minister of justice, addressed to all the prosecuting attorneys throughout the different departments of France a circular relative to the safeguarding of the public health. In this circular the minister declares that "the Government is more than ever determined to repress all fraud, notably that which is too frequently practiced in the wine trade." A number of convictions have been secured in the courts of Bordeaux and in other places in southwestern France—nearly all of them through the instrumentality of the "Union Syndicale des Negociants en Vins de Bordeaux," an association of the leading wine merchants of Bordeaux, who have determined, if such a thing is possible, to put an end to the fraudulent practices of unprincipled dealers.

REMEDY SUGGESTED.

The blending of wines is carried on quite extensively; but this seems to be a natural and harmless proceeding, so long as no adul-

terants enter into the equation. Large quantities of Algerian wines are imported here, and while some of it is utilized as a blend by a certain few of the merchants, the bulk of it, I find, is shipped through to Paris and other parts of France. Of the amount of Algerian wine imported in 1905, approximately 140,000,000 gallons, only 8 per cent, remained in Bordeaux, according to official figures.

Much of the fraud carried on in the wine trade could be stopped if the growers and the proprietors of vineyards and chateaux would be required to make declaration before the mayors of their respective communes at the end of each vintage, setting forth the exact output of their vineyards. These declarations ought to be made public, either by the papers or by posting in the mayor's offices. As their stocks of wine are sold from time to time they should be required to notify the mayor of each transaction, giving the name and address of the merchant or broker who buys them, with the amount disposed of. When the entire stock is sold, it would be publicly known that there was no more of that particular wine in the growers' stocks. This would at least prevent "mouillage," the most common of the frauds.

THE CLASSED WINES.

There is undoubtedly considerable false labeling on what are known as the "classed wines." It is quite impossible, however, to state the extent of the practice, or to name the individuals engaged in it, for they work under close cover. Of the Chateau Margaux wine, there are at this time in stock in Bordeaux about 2,000,000 bottles of different years' vintages, but how many bottles so labeled and sent abroad really contain the excellent product of that famous chateau can not be told.

The renowned Pontet Canet Chateau produces annually about 300,000 bottles, but much more than that amount is put on the market each year.

The Chateau Lafite output is about 200,000 bottles, but much of the wine masquerading under that label is innocent of contact with the well-known vineyard. And the same is true of most all the classed wines.

There are houses here, however, whose very possession of any brands of wines guarantees their purity and freedom from adulteration, but there are a few concerns of whom so much can hardly be said. To prevent this false labeling, it can only be suggested that in addition to the name of the producer and the chateau on the label, there should appear also the name of the merchant or importer who handles the product. Probably the publicity incident to such a plan would tend to minimize the fraud. Whether such a course could be insisted upon in wines shipped to the United States is a question to be determined.

SALUTARY EFFECT OF PURE-FOOD LAW.

Having given much time to the study of oils and wines, I am led to believe that olive oils exported to the United States from Bordeaux bearing the names of well-known and old-established firms are really what they purport to be—pure olive oils. And it may also be accepted that wines bearing the names of Bordeaux's high-class merchants are pure and free from adulteration. I have the assurance of men in the trade that they would be glad if the Government of the United States

would forbid the use of any names on packages containing other than those food products of the exporters, the multiplicity of fictitious names arising in great measure from the demands of large American buyers.

The trade here is now beginning to understand, even the men who have been suspected of irregular practices, that food products entering the United States must be as represented, and I believe that a rigid enforcement of the regulations recently promulgated will reduce to a minimum, if not entirely stop, the misbranding and adulteration of oils, wines, and other food products.

INDIA.

MEASURE FOR LEGAL PROTECTION FOR MERCHANDISE AND MACHINERY.

Consul-General William H. Michael, of Calcutta, quotes a letter he has received from Buffalo, N. Y., which reads as follows:

We have been told that a peculiar law exists in India in reference to trade-marks, somewhat to this effect: If a trade-mark is registered, and protecting a certain style of machine, the firm so doing must show by actual sales that it is entitled to same, and that that firm is really the leader in that line of goods, shipping more into India than any other concern. Will you not kindly inform us just what the law is in this respect, if possible, sending us a copy?

This is one of several letters Mr. Michael has received making inquiries with regard to the law of trade and trade-marks in India, with the request that he send copies of the trade-mark laws, which he is unable to do. To meet this demand he therefore sends the law condensed in as small a compass as possible, as follows:

General principle of trade-mark law.—Protection is given to trade-marks because a trade-mark is property. The general principle upon which the courts exercise jurisdiction in the case of trade-marks is that "a manufacturer who produces an article of merchandise which he announces as one of public utility, and who places upon it a mark by which it is distinguished from all other articles of a similar kind, with the intention that it may be known to be of his manufacture, becomes the exclusive owner of that which is henceforth called his "trade-mark." By the law of this country—and the like law prevails in most other civilized countries—he obtains a property in the mark which he so affixes to his goods. The property thus acquired by the manufacturer, like all other property, is under the protection of the law, and for the invasion of the right of the owner of such property the law affords a remedy similar in all respects to that by which the possession and enjoyment of all property is secured to the owners. A man is not to sell his own goods under the pretense that they are the goods of another man; he can not be permitted to practice such a deception, nor to use the means which contribute to that end. He can not, therefore, be allowed to use names, marks, letters, or other indicia by which he may induce purchasers to believe that the goods which he is selling are the manufacture of another person. In order to constitute property in a trade mark the mark must not have been copied from another person's mark, nor involve any false representation.

What may be a trade-mark.—Any symbol or emblem, however unmeaning in itself, any name, number, or combination of names, marks, numbers, etc., may be used as a trade-mark. But the trade-mark adopted must not be a colorable imitation of a trade-mark previously used by somebody else and of such a nature that it is likely to make unwary purchasers suppose that they are purchasing the article sold by the party to whom the right to use the trade-mark belongs. Thus it has been held that "cacaotine" was a colorable imitation of "cocoatina," "steel pens" of "stephens," "tung's" of "tonges" and the like. No trader can adopt a trade-mark so resembling that of a rival as that ordinary purchasers, purchasing with ordinary caution, are likely to be misled.

Registration.—In England acquisition of a trade-mark may be made by registration. By the English patent acts, 1883-88, no infringement of a registerable trade-mark can be restrained, nor can damages be recovered therefor, unless the mark has been registered. There is no registration of trade-marks in India. As a rule the person who has first used the trade-mark would be considered the proper person

entitled to use it, except under special circumstances. The registration in England of a trade-mark used in India is useful, as it affords some proof of user and ownership.

Requisites of infringement.—The plaintiff must establish the existence of the trade-mark, his exclusive right therein, the fact of an imitation, and the absence of license or acquiescence on the part of the plaintiff. A man may by his own delay and acquiescence lose his right to that protection which he would have obtained at once had he come to the court with reasonable promptitude.

Remedies in case of infringement.—A person whose trade-mark has been infringed has two remedies, viz, (1) in the criminal courts by a prosecution under the provisions of the penal code and Indian merchandise marks act; (2) in the civil courts by a suit for damages and on account of profits, and by injunction under the specific relief act to restrain the wrongful user of the imitation trade-mark. An injunction will be granted to restrain an imitation of a trade-mark if it is calculated to deceive a purchaser of goods. If A improperly uses the trade-mark of B, B may obtain an injunction to restrain the user, provided that B's use of the trade-mark is honest. It is also open to the owner of a trade-mark to claim the assistance of the customs authorities to prevent the import of goods bearing a counterfeit trade-mark or a false trade description. An innocent use of an imitation trade-mark is no defense to a civil action.

Transfer of trade-mark.—A trade-mark is capable of being assigned during the life of its proprietor and of being transmitted at his death, but it can be assigned and transmitted only in connection with the good will of the business concerned in the particular goods or classes of goods for which it is the mark, and an assignee has no exclusive right to a trade-mark unless the assignment is of a business coextensive with the trade-mark. The trade-mark can not be severed from, and used independently of, the good will. On the sale of the good will of a business the trade-mark will pass whether specially mentioned or not.

Object of the Indian merchandise marks act.—The object of this act is to bring the law of India relating to fraudulent marks on merchandise into accord, as far as local circumstances admit, with the law of England as enacted in the merchandise marks act, 1887. The Indian act adopts the provisions of the English act with respect to false trade descriptions and recasts on the lines of that act that part of the Indian penal code which relates to trade-marks and property marks, and that part of the sea customs act, 1878, which relates to the prohibition of the importation into British India of goods bearing false descriptions or marks. The act extends to the whole of British India, and came into force on April 1, 1889.

Meaning of "trade-mark."—A mark used for denoting that goods are the manufacture or merchandise of a particular person is called a "trade-mark," and for the purposes of the Indian penal code, the expression "trade-mark" includes any trade-mark which is registered in the register of trade-marks kept under the patents, designs, and trade-marks act, 1883, are under order in council for the time being applicable.

Meaning of "property mark."—A mark used for denoting that movable property belongs to a particular person is called a "property mark."

"*Trade description.*"—This means any description, statement, or other indication, direct or indirect, (*a*) as to the number, quantity, measure, gauge, or weight of any goods; or (*b*) as to the place or country in which, or the time at which, any goods were made or produced; or (*c*) as to the mode of manufacturing or producing any goods; or (*d*) as to the material of which any goods are composed; or (*e*) as to any goods being the subject of an existing patent, privilege, or copyright, and the use of any numeral, word, or mark which, according to the custom of the trade, is commonly taken to be an indication of any of the above matters, is deemed to be a trade description within the meaning of this act.

"*False trade description.*"—Means a trade description which is untrue in a material respect, and the fact that a trade description is a trade-mark or part of a trade-mark does not prevent such trade description being a false trade description within the meaning of this act.

Using a false trade-mark or property mark.—Whoever marks any goods or any receptacle containing goods, in a manner reasonably calculated to cause it to be believed that the goods so marked are the manufacture or merchandise of a person whose manufacture or merchandise they are not, is said to use a false trade-mark. Whoever uses any false trade-mark or any false property mark is, unless he proves that he acted without intent to defraud, punishable with imprisonment of either description for a term which may be extended to one year, or with fine, or with both. Whoever marks any goods or any case, or uses any case or other receptacle having

any mark thereon in a manner reasonably calculated to cause it to be believed that the property or goods contained in any such receptacle so marked belong to a person to whom they do not belong, is said to use a false property mark. Whoever counterfeits any trade-mark or property mark used by any other person is punishable with imprisonment for a term which may extend to two years, or with fine, or with both. Whover sells or has in his possession for sale or any purpose of trade or mannfacture any goods or things with a counterfeit trade-mark or property mark affixed is, unless he proves that he had acted in innocently, punishable with imprisonment for a term which may extend to one year, or with fine, or with both. Whoever makes any false mark upon any receptacle containing goods is, unless he proves that he acted without intent to defraud, punishable with imprisonment for a term which may extend to three years, or with fine, or with both; and whoever makes use of any such false mark is, unless he proves that he acted without intent to defraud, punishable as if he had committed an offense against that section.

Provisions supplemental to the definition of false trade description.—The provisions of the merchandise marks act respecting the application of a false trade description to goods or respecting goods to which a false trade description is applied, extend to the application to goods of any such numerals, words, or marks, or arrangement or combination thereof, whether including a trade-mark or not, as are or is reasonably calculated to lead persons to believe that the goods are the manufacture or merchandise of some person other than the person whose manufacture or merchandise they really are, and extend to the application of any false name or initials of a person, and to a trade description which denotes or implies that there are contained in any goods to which it is applied more yards, feet, or inches than there are contained therein.

Penalty for applying a false trade description.—If a person applies a false trade description to goods he is subject to the provisions of this act, and unless he proves that he acted without intent to defraud, punishable with imprisonment for a term which may extend to three months or with fine which may extend to 200 rupees ($66.99) and in the case of a second or subsequent conviction with imprisonment which may extend to one year, or with fine, or with both.

Forfeiture of goods.—(1) When a person is convicted under section 482 of the Indian penal code of using a false trade-mark, or under section 486 of that code of selling, or exposing or having in possession for sale or any purpose of trade or manufacture, any goods or articles with a counterfeit trade-mark applied thereto, or under section 487 or section 488 of that code of making or making use of a false mark or under section 6 or section 7 of the merchandise marks act of applying a false trade description to goods, or of selling, or exposing, or having in possession for sale or any purpose of trade or manufacture, any goods or things to which a false trade description is applied, or is acquitted on proof of the matter or matters specified in section 486 of the above-mentioned Indian penal code or section 7 or section 8 of this act, the court convicting or acquitting him may direct the forfeiture to His Majesty of all goods and things by means of, or in relation to, which the offense has been committed or, but for such proof as aforesaid, would have been committed. (2) When a forfeiture is directed on a conviction, and an appeal lies against the conviction, an appeal lies against the forfeiture also. (3) When a forfeiture is directed on an acquittal, and the goods or things to which the direction relates are of value exceeding 50 rupees ($16.50) an appeal against the forfeiture may be preferred within thirty days from the date of the direction to the court to which in appealable cases appeals lie from sentences of the court which directed the forfeiture.

GREAT BRITAIN.

REQUIREMENTS WHICH AFFECT AMERICAN TRADE.

Advices from Consul Albert Halstead, of Birmingham, state that hereafter watches of foreign manufacture whose cases are gold or silver must be assayed, stamped, and marked before being offered for sale in the United Kingdom. The consul writes:

This requirement, which has heretofore applied only to British watches, follows from a recent decision of the court of appeal of the British supreme court of judicature. The case may be carried to the House of Lords, but until their decision it stands as the law of the United Kingdom. The decision removes a long-continuing ground of complaint of British watch and watch-case manufacturers, that while

their gold or silver watch cases, even when completed by the works or movements, had to be "hall-marked" that was not required of completed watches of foreign manufacture, and was only applied to foreign gold or silver cases that did not contain the movements.

The decision is of great importance to American watch manufacturers and may lessen the exportation of their products to the United Kingdom, because watch cases, in order to be "hall-marked" must be sent over in the rough to be assayed, stamped, and marked by the Goldsmiths' Company in London, the mint in Birmingham, or any other officially recognized hall-marking place in the United Kingdom. After being "hall-marked" the watch cases must be returned to the United States to be polished. The case concerned watches imported from Switzerland, but the decision affects all foreign watches.

To the jewelers of this district the decision is a boon. Some watch cases are made in Birmingham, but not a great number, while in Coventry, about 18 miles away, many are manufactured, and in years past, before the heavy competition of Swiss and American watches, probably more watches and watch cases were made there. British manufacturers declare it was unjust that, as a result of what they considered discrimination against the domestic product, American, Swiss, and other makers could sell a "gold" watch which was partly gold and partly base metal. They claim that many a man thinks to-day he has a solid gold watch, bought at auction, which though it has a gold outer case has an inner case of base metal.

STAMPING SWISS CASES—AMERICAN POSITION.

One Birmingham manufacturer speaking to a newspaper representative said of the decision: "If it is upheld, as it is hoped it will be, foreign rubbish brought here will be stopped. The Swiss will have to stamp their cases indicating their quality, whether 9, 15, or 18 karat, and if there are any metal 'domes' they will have to be described as such. In addition to the making of gold outer cases and metal inner cases without inscription, they have been allowed to stamp cases 9, 15, or 18 karat, but either of these qualities would not assay to anything near its mark. If I were to make silver watches now, and if the cases did not assay to the value of the hall-mark, they would give me six months' hard labor, whereas such things have been permissible to foreigners for years."

The law enacted at the first session of our present Congress, as I understand it, imposes a heavy penalty upon anyone who sells as sterling, or as a certain fineness of gold, any article that will not upon assay reach that fineness. As a result, any piece of American jewelry marked as being of a certain fineness of silver or gold is now of that actual fineness. In these circumstances it might be possible for the United States to require that any piece of foreign plate must be assayed and proved in the United States to be of the exact fineness claimed or refused admission to the country. In other words, if an American article marked as being of a certain fineness of gold or silver is not to be accepted as such, it would seem fair for the United States to cast the same doubt upon similar articles made of gold and silver that are imported.

MOTORS AND VEHICLES.

DEVELOPMENT OF AUTOMOBILING.

GERMANY.

SUCCESS OF THE BERLIN AUTOMOBILE EXPOSITION.

Consul-General A. M. Thackara reports that the International Automobile Exposition of Berlin recently closed after the most brilliant success ever attained by any previous exhibition of its kind in Germany.

The exposition was held under the auspices of the Imperial German Automobile Club and the German Association of Motor Car Manufacturers. The demands for space were so great that the immense building in which it was held proved inadequate, and temporary provision had to be made outside for many of the heavier exhibits and the motor boats.

According to the official catalogue there were 980 distinct exhibits shown by 371 firms, companies, and individual manufacturers, as compared with 320 exhibits and 298 firms in the exposition of February, 1905. Of the exhibitors, 338 were German, 17 French, 5 Italian, 4 English, 3 American, 2 Belgian, and 2 Swiss. This classification designates only the nationality of the direct exhibitors and does not explain the large number of exhibits, such as machinery, automobile parts, and accessories made in other countries and exhibited by German firms and companies who are the resident agents for the sale of such products in Germany. For example, Schuchardt & Schütte, of Berlin, exhibited a fine collection of American lathes, drill presses, milling machines, etc., for making special parts of motor cars. The machines came from Cleveland, Cincinnati, Waynesboro, Newark, etc., and, being largely automatic and exhibited in operation, formed a display which attracted absorbing interest.

GREAT PROGRESS IN DETAILS.

While there was but little that was strikingly novel, great progress, however, was shown in the attention paid to the details of construction, not only in the motors, but also in the methods of transmission, in the brakes, in the coach work, and in the refinement of design. One could not help being impressed with the tendency of the manufacturers to simplicity, in making the chasses as little complicated as possible; also with their efforts to render the working parts of the motor easily accessible and to provide adequate protection from the weather for every class of motorists.

According to experts the following are the most important points which may be said to have formed the dominant notes of the exposition: Nearly all of the cars exhibited had vertical water-cooled cylinders, cast singly and in pairs. In one or two cases, however, for small motors, four cylinders were cast in one piece. Air-cooled cylin-

ders were shown only by a few firms, who are builders of small cars with one or two cylinders. Among these were cylinders made in the V form, which indicates that notwithstanding the criticism of this very old method of construction it has of late again found favor among certain manufacturers who claim that it has many good points, one of the most valuable of which is its simplicity. On practically all of the well-known motor cars mechanically operated valves were placed on both sides of the cylinders, in a few cases on one side, and on two cars on top.

The methods of ignition were about equally divided between the "make and break" and "jump spark." Many of the larger cars had two ignitions, in which cases the high tension magnets with jump spark and the battery ignition, both of which can be worked independently, were used. It is claimed that a considerable increase of engine power can be obtained by operating the two ignitions simultaneously. With the exception of the American "Ford," on which the planetary transmission was used, this method was only to be seen on smaller cars, many of which are built on the style of the American Oldsmobile.

HYDRAULIC SYSTEM—BEVEL GEAR TENDENCY.

The Pitler hydraulic oil system, exhibited by the Hydromobile Gesellschaft, Berlin-Reineckendorf, is a new method of transmitting power, and is at least interesting. It is the result of years of study, and after it has graduated from its present apparently complete construction to the position of a thoroughly and practically proved invention it may play a prominent part in automobile construction. It is built on the hydraulic principle, oil instead of water being used. The oil is compressed by a pump driven by a benzine motor and conveyed in tubes to the rear axle. The rear axle is constructed somewhat in the manner of a double turbine, each turbine operating its own driving wheel independent of the other. In this manner the differential and the gear box for changes of speeds are dispensed with. The tubes conveying the oil to the rear axle are fitted with a by-pass valve governed by a lever within reach of the chauffeur, which allows a portion of the oil to be returned to the tank, and in this manner the regulation of the speed is effected.

With the exceptions mentioned, the sliding-gear transmission was to be seen on most of the benzine cars in the exposition. This system is that which is generally used in Germany and it is claimed by the manufacturers that it will continue to grow in favor throughout the world, as it has in Europe. The direct-bevel gear and the chain drives were about equally divided, but the tendency seems to be in favor of the former, even on the larger cars up to 50 horsepower. Some of the well-known firms who have of late only used the chain, are now offering to their clients the propeller-shaft transmission. In their efforts toward simplicity some of the manufacturers have omitted the speed regulator, as it is considered by them as a superfluous complication.

GAS MIXTURE—LUBRICATION—SIX-CYLINDER MOTORS.

The pressed-steel frames were universal; also ball bearings are used throughout on all of the best makes. The principle of the float carbu-

retter as used on the standard European cars has not been changed, but improvements have been made by arrangements for a better mixture of gas and air, also by warming the carburetter with the water which has been used for covering the motor, and some of the manufacturers give the carburetter a second injection of cold air after the gas has been formed mechanically.

Positive mechanically operated inlet valves were on nearly all of the larger as well as on many of the smaller cars seen in the exposition. Revolving pumps for water circulation, with which practically every car was equipped, in almost all instances were driven by spur gears instead of chains, belts, or friction wheels. The cooling systems were divided between the honeycomb cooler and the flange tube radiator, on the better cars there being more of the former and on the cheaper ones more of the latter. Most of the well-known makes had positive oil pumps for the circulation of oil for lubrication, whereas on the cheaper cars there were mostly drop oilers, operated by the pressure of the exhaust from the motor.

Four-cylinder cars, ranging from 12 to 35 horsepower, and in one or two cases as high as 90 horsepower, were shown by practically all of the larger automobile manufacturers. The six-cylinder motor was exhibited for the first time in Berlin. These latest creations were displayed by the following firms: Gebrüder Stoewer, of Stettin; Achenbach & Co., of Hamburg; Argus Motoren Gesellschaft, of Berlin, Hotchkiss, Darrach, Vinot, and Deguingand-Puteaux, and the American Ford.

PRACTICAL USE OF MOTORS.

There were many motor vehicles of various types for industrial and business purposes exhibited, but considering the great importance of this branch of the automobile industry, a much larger exhibition might have been expected. The reason assigned is that nearly all manufacturers in Germany who are in a position to deliver vehicles are so overcrowded with orders for touring cars, on which they are able to realize a much greater profit than on cars for business purposes, that the latter receive only secondary consideration. The inclination of the manufacturers toward standardizing their motors and the construction of the same in large quantities, together with the fact that new plants are rapidly springing into existence, will probably soon effect a change in this condition of affairs.

It is thought that overproduction will at least cause a reduction in the price of touring cars to such an extent that the manufacturer will find it to his advantage to seek his trade in the broader field of the business vehicles. The public in the meantime is becoming educated very rapidly in the use of automobiles for delivery and other purposes. In Berlin the one-horse taxameter "fiacre" is fast being replaced by the cleaner, more compact, and far speedier motor car. Motor omnibuses are being substituted for those dragged by horses. All the large department stores, several breweries, furniture dealers, wine merchants, milk companies, etc., now employ delivery wagons with steam or benzine motors, and the number of such vehicles in use is increasing every day. There is no doubt that there is a great future for this branch of the automobile industry, and it is expected that at the next exposition there will be a much greater number of industrial and business cars shown than at the one just closed.

MOTOR BOATS—TRACKLESS TRAINS.

The motor-boat display was confined chiefly to touring craft, probably for the reason that there not being space enough in the main buildings, motor boats and the heavier exhibits were shown in a temporary shed. The Daimler Motoren-Gesellschaft had a magnificent pleasure boat, with inclosed apartments finished in mahogany and of dimensions and power sufficient for long tours, not necessarily to be confined to the inland rivers and lakes. Other notable touring boats were shown by the Neue Automobil Gesellschaft, of Berlin; Motorenwerk Hoffmann & Co., of Potsdam, and the Deutsche Buffalo Motor-Werft, at Stralau, near Berlin. The latter company is a licensed agent of the Buffalo-New York Motor Works, and was the only one exhibiting motor boats constructed on American plans. This was greatly to be regretted as in this section of the country there is every reason to believe that there would be a good opening for the sale of the excellent, well-built, handy, and reasonable-priced touring craft, which have attained such a great success in the United States. In the Buffalo company's display there was a touring boat which had recently taken a prize in a competitive race on the Muggel Lake near Berlin.

TRACKLESS STEAM CARS.

There were several steam cars displayed which were designed for passenger service and for carrying heavy loads. The Hannoversche Wagenfabrik A. G. exhibited a combination car, manufactured after the system of Ganz & Co., of Budapest, which is used by the Prussian Railway Company at Hanover. Other steam cars were the Stolz and Altmann, but one of the most interesting exhibits was that of the Freibahn G. m. b. H, of Seegefeld near Spandau. It consisted of a complete so-called trackless train, composed of a steam street locomotive with tender and four two-wheeled cars. The locomotive and tender were combined and so constructed that they may be attached to either end of the train. A patented steering arrangement enables the train to be propelled either forward or backward or to take a corner with a 7 meter (23 feet) circle. Either tar or petroleum can be used as fuel. Each car carried about 3½ tons with a wheel pressure of 2.75 tons. The diameter of the locomotive wheels was 1.8 meters (5.9 feet) with a tread of 25 centimeters, and of the cars 1.6 meters (5¼ feet) and tread 15 centimeters. The widths between the wheels of the cars were different to avoid cutting up the roadbed. Speed of the train loaded is estimated at about 6 kilometers (3.7 miles) per hour and when empty at about 8 kilometers (5 miles). This train is supposed to take the place of six heavy two-horse trucks, with considerably more economy and less damage to the roads.

On the whole the Fall Automobile Exposition of 1906 from a business point of view was the most successful ever held in Germany. On many of the exhibits placards indicated that they had been sold many times over, in one case as high as thirty-six times, and another one hundred times. The exhibition was more of an international display than heretofore but it has shown that Germany has taken a place in the first rank of nations in the important field of automobile manufacture.

GREAT BRITAIN.

MOTOR-CAR TRADE IN EDINBURGH.

Consul Rufus Fleming reports that the Edinburgh firms acting as agents for manufacturers of motor cars inform him that their trade in 1906 was highly satisfactory. The consul continues:

Sales were never before as large as they were during the first half of the year. The demand is now comparatively slack, but a good business in the coming spring and summer is confidently expected, with some changes in public requirements, as indicated by tendencies now observable. A fair idea of the general character of the trade done in the last twelve months may be gained from a statement of the manager for an important firm that of their aggregate sales (in value, not number, of cars) about one-third were cars of $5,000 and upward, one-third cars of $3,000 to $5,000, and one-third cars of $1,500 to $3,000. There were few calls for machines above $7,500 in price, or for machines under $1,500 in price, wealthy customers showing a preference for the $5,000 to $7,500 types, and moderately well-to-do customers buying the $1,500 to $2,500 types.

The outstanding features of the trade at this time are: (1) Small, low-priced motor cars (runabouts) are not wanted. One dealer tersely says, "That trade is dead." Persons who can not afford the luxury of a somewhat pretentious automobile are more and more disposed to content themselves with a horse carriage until fortune shall favor them. (2) The demand for two-cylinder machines has rapidly diminished in the last six months and is now almost at the vanishing point. (3) The cars generally preferred are four-cylinder, 15 to 25 horsepower, ranging in price from $1,750 to $3,000. Next in importance are sales of $4,000 to $5,000 cars, four-cylinder, ranging from 25 to 35 horsepower. (4) Electric buggies or carriages have a very limited sale in this part of Scotland. Some motor-car sales agents think that an advance could be made in this branch of the trade; others doubt if any electric vehicle would fully meet Scottish ideas of reliability and durability. Dealers here have a favorable opinion of the best grades of American motor cars. The only criticism I have heard is that American cars are, as a rule, rather too "high set" for this market. [A list of Edinburgh dealers in motor cars can be secured from the Bureau of Manufactures.]

PROSPEROUS CONDITION OF TRADE.

Consul F. W. Mahin, of Nottingham, writes that the largest business on record is being done this year by the automobile and bicycle factories of England.

One company which a year ago had a seemingly short lease on life, for the year ended August 31, 1906, earned profits exceeding $500,000, from which a dividend of 6 per cent per annum for the past three years was paid on the preference shares, and 5 per cent on the ordinary shares, and $200,000 was carried to the reserve. Analysis of some other cycle companies' accounts would probably show even more striking indications of good business.

The feeling in automobile-making circles is so buoyant and sanguine that confidence is expressed of entirely supplanting foreign cars with British, in process of time. It would be impossible just now, for the

home factories can not supply the home demand. But new factories are being erected and old ones enlarged, and within a few years the aggregate plant is expected to be able to meet all demands. This assumes that the present popularity of the French machines can be overcome and that the present presumption of their superiority over all other machines, in this country, can not survive against the results of the improving methods and machinery and the broadening experience of the British manufacturers. It is hardly possible that the present boom will continue unabated for any great length of time, and so there is danger of undue inflation and overproduction, and a repetition of the disaster which followed the bicycle boom a few years ago.

Extensive plans are being laid for 1907 in the motor-car branch, when a prodigious trade is expected. It is intended to produce a greater range of automobiles, and particularly cheaper grades, from 10 to 35 per cent lower in price than the usual output of British factories. Several cheap makes have stood the test of experience, and these will be made specialties. While catering to a more extended custom, the production of such cars is aimed specially at France, whither British purchasers of this grade of stock have always turned. It is hoped that the bulk of this trade can now be kept on the British Isles.

MOTOR BOATS.

THE UNITED KINGDOM.

INCREASING BRITISH LEISURE SEEKING PROVIDES GOOD MARKETS.

Consul D. W. Williams, writing from Cardiff, says that there is a fine opening for automobile boats in British waters. The article that will sell the readiest is the motor boat that will combine reliability with simplicity of machinery and reasonableness of price.

The British people are great holiday makers and their passion for water sports is growing. Each returning season sees greater crowds on the rivers and at the coast resorts. The Welsh coast in particular is dotted with resorts from Rhyl, Colwyn Bay, and Llandudno on the north, round to Penarth and Cardiff on the south, and since these have risen to sudden prominence a great wave of holiday makers has set westward. The natural result will be a growing activity in the motor-boat trade for several years to come. Similar conditions prevail in Cornwall and Devon and on the south coast of England, as well as on the Thames, Avon, Severn, Wye, and other rivers.

AN OPENING FOR THE MOTOR BARGE.

There is an opening also for the motor barge. Some experiments, partially successful, have been tried with petrol, but the *Wasp*, a Dutch boat that came across the North Sea last summer driven by her own engines, has given most satisfaction on the Thames. This, the first motor barge on the Thames, has a 24-horsepower motor in her stern, can carry 20 tons at 8 miles an hour on 2 gallons of petroleum, and costing nothing when not moving, bids fair to drive all the old-fashioned barges off the Thames, just as the type is said to have revolutionized the canal barging in Holland. It is claimed, also, that

several of the same type of barges have been shipped to Foochow, Shanghai, and other eastern ports for use on the Chinese rivers and canals. If they prove successful in China, they will no doubt put new life into the scheme to revive the canal traffic of England.

Americans wishing to enter the motor-boat trade must expect to exhibit samples at their own expense, and to do so to the best effect, they should be manned by Americans. Foreign drivers can not be expected to give an American boat a fair trial, for various reasons, many of which are apparent to those who know of the experiences of the makers of American locomotives, which have been too often scrapped by foreign drivers, because of their incompetency or their lack of sympathy. The Welsh winters are uniformly mild, and a competent salesman, accompanied by a mechanic and a model boat, could visit all the Welsh and Cornish resorts before the next season opens. It will be found that better results can be accomplished thus than by the use of tons of advertising matter and all other antiquated selling methods. British buyers pay little attention to advertising of any kind, and ordinary correspondence will hardly pay. With the present awakening in Europe, during the stress occasioned by competition, such as was never known before, the only way for American manufacturers to acquire new and permanent business is by the employment of first-class salesmen and the exporting of genuine, unadulterated goods and substantial, well-constructed machinery. They must not expect to build up trade by means of mail orders.

ON THE RIVER TYNE.

Consul H. W. Metcalf writes from Newcastle regarding motor boats that there are not half a dozen used on the river Tyne, and thinks there is a market for them if some energetic firm had a sample one there. He adds that at the seashore and the various inland watering places, in the holiday season there are hundreds of pleasure boats, which would no doubt be soon displaced by motor boats if some were on exhibition or in use. [The consul names two Newcastle firms who import American machinery, also two firms interested in motor boats, the addresses of which can be secured from the Bureau of Manufactures.]

WIDESPREAD INTEREST—TYPES OF MACHINERY USED.

Consul Walter C. Hamm, writing from Hull, says that motor boating in England has been developed to a much greater extent than in America.

This is due partly to the facts that England has a large number of canals, and that the current of its rivers is more sluggish and better adapted to motor boating. The nearness of most of the population to the ocean also has encouraged seacoast motor boating. The natural taste of the English for the water is still another element favorable to the motor boat. Taking all these reasons into consideration it is not strange that motor boating has aroused a very wide interest, and that it has come to be used for pleasure and for business purposes. Its adaptability to marine warfare is also being closely studied.

There are, of course, a great variety of motor boats and motor engines in use, and new inventions and new models are constantly being tested and placed on the market. The machinery is one of the most important parts of these boats, and the various designs of engines

and propellers are being studied closely and tested scientifically. A verdict has not as yet been reached as to which is the best style of boat and motor. But some of the conclusions reached in England as to the size of motor boats and styles of engines may be valuable to American builders.

MACHINERY OF MOTOR BOATS.

The adaptability of the internal-combustion engine as applied to marine boat purposes was brought before the British Institution of Naval Architects about two years ago. The question was raised by a designer of torpedo craft, who naturally considered these engines chiefly from the standpoint of a naval expert. Since then the French Government has instituted a competition for naval service boats propelled by internal-combustion engines. The specifications require that the boats be about 60 feet long, and decked over, insuring adequate protection for the motor, quarters for the officers and crew, and space for several small rapid-firing guns, and other necessary equipments. The speed is to be at least 12 knots per hour, and the engines, of the kerosene type, are to be supplied by the French Government.

Several internal-combustion engines have been fitted to boats built for the Russian Government. These boats are 90 feet long and equipped with two motors, each developing 300 horsepower. As the gasoline motor has made considerable progress in submarine boats, it may be gradually adopted for the working boats of ships. For such boats a motor of medium speed and weight is required, and it must be properly protected, or, in other words, fitted with a water-tight compartment. For the ordinary torpedo boat the conclusion is reached that the internal-combustion engine is not suitable unless either heavy oil or alcohol motors are used, or perhaps engines for suction gas. It is considered probable that the successful motor for marine purposes when the sizes are increased will be double-acting, with water-cooled pistons.

The application of motor boating to the needs of the navy is arousing much attention, and the experiments making will probably soon demonstrate whether there is a possibility of their being used profitably in connection with war ships. The purpose would be to utilize them as scout boats and for carrying information back and forth from war ships to the land, and for penetrating shallow harbors, and for reaching coasts that would be dangerous for ships to approach. What the result will be has yet to be shown.

The cost of motor boats and their outfit is variously stated. One authority puts the cost of a 7 to 8 horsepower marine engine and propeller outfit complete at $400. Others put the cost of such engines as high as $500.

ITALY.

HOW AN ORDER FOR SIX AMERICAN BOATS WAS LOST.

Consul Paul Nash, of Venice, writes that the peculiar situation of Venice should make it an especially good market for motor boats. He continues:

At present the number of boats in use is, perhaps, 30 or 40, the reason for this small number being the high prices charged by local

boat builders and Italian motor manufacturers, plus the exorbitant duty on naphtha. I have never doubted that American manufacturers could introduce their motors here with success, provided they were willing to do business upon a sensible basis instead of persisting in the absurd idea of requiring cash with order, or against documents. An illustration of this has recently presented itself to me, and may be of interest as showing the futility of certain American business methods.

Some months ago, at the instance of a large manufacturer of motor boats, I endeavored to find an agent for him in Venice, and after some difficulty succeeded in doing so. This agent, provided with a catalogue, secured six orders, on the condition that he should demonstrate that the claims of the manufacturers as set forth in the catalogue were true. In order to do this it would have been necessary for the agent to send the price of a sample boat to a firm of which he knew nothing beyond their printed claims. This he was not willing to do, and as the manufacturers would not send a boat to be paid for after trial the obvious conclusion was that they knew their boats would not be satisfactory. Thus an excellent chance for the introduction of a line of manufactures little known in Italy was lost to American commerce, and the impression produced here by the treatment of this agent has increased the prejudice against our business methods.

Properly handled, I believe the market to be capable of great development in this country, and the Italian lake district should also offer an especially favorable opportunity for the sale of motor boats. In order to prove my contention that a high-class boat could be brought to Venice from the United States at a considerable saving on the prices charged by the Italian manufacturers, I have recently imported a 20-foot boat with a 4-horsepower motor, at a total cost of about $625, including duty, whereas to build the same boat here, were it possible to do so, would cost fully $200 more. This boat has, I hope, served its purpose as an object lesson, and in dispelling the general impression that American motors are necessarily less economical of benzine than those of local manufacture.

FRANCE.

WATER MOTORING NOT YET POPULAR.

Consul-General R. P. Skinner reports that boating and yachting are not popular in the vicinity of Marseille as fashionable sports

The class of owners who do enjoy boating consists, as a rule, of persons of modest means and exceedingly conservative habits, little inclined to replace sails with engines. In spite of these unfavorable conditions, it seems to me quite likely that a demand for automobile boats could be created if an individual with the requisite energy and intelligence could be found to take the matter up. It is unfortunately the case with nearly all American manufacturers that they prefer to enter into relations with existing foreign firms, and therefore fall victims to just those apathetic conditions which have prevented the automobile boat from becoming common thus far. Addresses are furnished of Marseille dealers in automobiles and automobile boats, although without much confidence in the prospect of resulting business. [Names on file at Bureau of Manufactures.]

ALGERIA.

AUTOMARINE ENGINES.

Consul James Johnston states that as Algeria possesses neither navigable rivers nor canals there is but a very limited demand for motor boats, there being only four altogether in Algiers and surrounding ports.

Recently, however, a good deal of attention is being given to this class of boats for excursions on sea, and it is not impossible that a demand may arise for the larger sized engines. But no business can be done in Algeria without a depot with a certain number for sale. [Three houses of Algiers that might possibly be interested are named by the consul, and the addresses are on file at the Bureau of Manufactures.]

PORTUGUESE AFRICA.

WIDENING SCOPE OF MARKET FOR BOATS.

Consul W. Stanley Hollis, of Lourenço Marquez, advises that there has been some demand in southeast Africa for motor boats, but that none from the United States have yet been sold. He writes:

The people who are mostly interested in motor boats at present in this port are Allen, Wack & Co., and the local government. Rev. E. H. Richards, an American missionary at Inhambane, is thinking of getting a motor boat for the use of his mission. At Beira there is always a small demand for such craft, and, as he is allowed to transact business, Consular Agent Arthur W. H. Glenny, at that port, might be written to.

The greatest demand for boats of all descriptions comes from Zambezia, where there are hundreds of miles of navigable rivers and where a greater part of the transportation is by water. The largest corporation interested in the means of transportation in Zambezia is the Companhia da Zambezia, which has its head office in Europe at 53 Rua do Alecrim, Lisbon, and its head office in Africa at Tete, Zambezia. Mr. Alfred Obrist, of Chinde, at the mouth of the Zambezi, is also interested in river and lake transportation in that region.

The engineer of the new Swazieland Railroad tells me that about eighteen months ago, when he was in Lisbon making his preparations for the construction of that line, he wrote to a prominent manufacturer of motor boats in the United States asking for prices and terms, as he was considering the advisability of transporting construction material to the half way peg by the way of the Umbelusi River, which is vavigable for light-draft vessels. To his surprise the American manufacturers declined to deal with him direct, and referred him to one of their Continental agents, whose prices were so much higher than the advertised American prices, and whose whole manner of doing business was so unsatisfactory, that he was obliged to give up all idea of buying any motor boats before he departed from Lisbon.

MARKETS FOR CARRIAGES.

FRANCE.

REPUBLIC FURNISHES GOOD OPENING FOR AMERICAN VEHICLES.

Consul Louis Goldschmidt, of Nantes, advises that American carriage manufacturers could probably do an excellent business in that part of France. He writes:

Considering the prices of carriages made here, one may without exaggeration say that these sell for about double the price of similar vehicles built and sold in the United States. An ordinary two-wheeled cart of good construction sells from $80 to $100, and better ones with fine workmanship and finish sell at $200 and $300. All work about these is hand labor, and consequently expensive. They are durable and safe, but lack the comfort of some modern American vehicles. The American carriage being very light, the question of duty on importation is one which might enable manufacturers to compete with any other country in this article, as considerable saving would be effected in customs dues. No other country could compete with the United States on such goods, nor does any country in Europe produce carriages that are better made or cheaper, so that the only competitor is the local carriage builder.

The American carriage as yet seems to be almost unknown in this part of France, and if American vehicles, such as buggies, carryalls, surreys, and other fancy styles of vehicles could be introduced in a small way there should be an excellent demand for them. The wealthy class would purchase a high type of vehicle for general use in the summer at their country residences, while carryalls and other two-seated carriages could be sold to the middle class and merchants for pleasure and general use, as the seating capacity and lightness would recommend them for such use. The French vehicles are heavy and cumbersome.

SPEED INDICATORS.

There should be a good market all over France for American-made speedometers, odometers, clocks, and annunciators for automobiles and other vehicles. The best way to introduce such goods is through a special representative, who should visit the different manufacturers and dealers in vehicles and establish agencies for the sale of these articles. The Nantes consulate would be glad to receive any catalogues printed in French for filing and distribution to interested parties. In regard to recording meters, it is well to remember that the only measurement in France is kilometers, or 0.62137 of a mile. [A list of dealers in and manufacturers of automobiles and general stores handling hardware at Nantes is indexed at the Bureau of Manufactures.]

AUSTRIA.

WATERING RESORTS AFFORD GOOD SALES OPPORTUNITIES.

Consul John S. Twells reports from Carlsbad that he receives inquiries from American manufacturers of carriages, buggies, dogcarts, and other vehicles, asking whether their goods might find a sale in that part of Austria, for whom he sums up the situation as follows:

From various places reports come that light American carriages like those mentioned might find purchasers at the Bohemian watering

places of Carlsbad, Marienbad, Franzensbad, and Teplitz, if it were easier to obtain them than is at present the case. During the season there are many thousands of foreigners at the Bohemian watering places which resemble in some respects Saratoga, Newport, and other places in the United States. Austrian, German, French, and Swiss manufacturers try to excel each other in the endeavor to introduce their productions at Carlsbad, because if seen here there is a chance of their being sold in various parts of the world, and I think light American carriages could find a sale here.

Carlsbad and Marienbad, however, are health resorts and not manufacturing towns. There are scarcely any agents here for articles of this kind, nor will anyone send money before he sees or gets the goods. In regard to productions of this description one must always bear in mind that nobody is anxious here to have them, but if they are publicly shown here it may be possible to insure sales. Some reliable maker or dealer in Austrian carriages should be induced to take up the matter and one or two American vehicles should be sent over for inspection on reasonable conditions. This will be the best way to introduce this class of goods into Austria.

INDIA.

AMERICANS COULD IMPROVE MOUNTAIN VEHICLES.

Consul-General William H. Michael writes from Calcutta that at all the "hill stations" of India, like Darjeeling, Simla, and Missorie, the principal vehicles of passenger conveyance are the "'rickshaw" and the "dandy." He says:

The former is pushed and pulled through the streets, and on the roads leading out into the country, by four coolies, and the latter is carried on the shoulders of four and sometimes six coolies. Saddle ponies are also used to some extent, but most of the inhabitants and quite all visitors used the "rickshaw" and "dandy." The latter is constructed on the plan of a sleigh box, but longer. A pole is attached fore and aft, which is long enough to give a springy motion when the coolies are walking and trotting. A crosspiece rests on the shoulders of the coolies, and is shifted now and then from one shoulder to the other for rest. By the command of the cooly in charge this shift is made simultaneously. As a rule, both the "rickshaws" and the "dandies" are heavier than they need to be, and are generally lacking in finish. Yet these vehicles cost as much as light and strong ones well finished should cost. The writer would like to place alongside of the "rickshaws" and "dandies" in use in India some samples manufactured in the United States after designs made by an American designer. The samples would attract orders.

TRANSPORTATION.

WORLD STEAMSHIP LINES.

EAST AFRICA.

IMPORTANCE OF TRAFFIC—AMERICAN LINE MUCH NEEDED.

Consul W. S. Hollis, in the following report from Lourenço Marquez, describes the shipping interests of Portuguese East Africa, through which pass great quantities of merchandise to the Transvaal and elsewhere, and the urgent need of a steamship line from the United States, lacking which merchants of Africa who desire to visit America on business fail to reach this country:

Vessels with cargoes mooring at the wharf are charged the equivalent of 56 cents per ton of cargo discharged; vessels without cargo, or with only a few tons, are charged 10 reis (1,000 reis=$1.08 gold). At present there are installed one 20-ton crane and quite a number of cranes capable of handling smaller weights from 1 to 10 tons each. Vessels lying in the stream discharge their cargoes into lighters, which are afterwards unloaded at the lighter docks. Fine lumber is lightered, but heavy timber is generally rafted ashore. The charges for lightering are from 97 cents to $1.21 per ton, general cargo; $1.09 per ton for lumber under 6 by 6, and $1.21 and upward for heavier timber. Sailing vessels generally discharge with their own crews, but stevedoring costs from 20 to 85 cents a ton. Sailing vessels discharging into lighters or on rafts in the anchorage must unload 60 tons of cargo dead weight per day, while steamers discharging in the anchorage must unload 120 tons, and at the wharf 350 tons a day.

TOWING AND TONNAGE DUES

The Government has two good tugs and there are a number of private tugs as well. The charges for towing are as follows: Vessels drawing up to 14½ feet, per mile, 7,000 reis; 15 to 20½ feet, 9,000 reis; and 21 feet and over, 10,000 reis. With reference to tonnage dues the collector of customs has furnished the following statement:

(*a*) Mail steamers are not subject to tonnage dues; but this exemption applies only to those that make regular voyages between Portugal and this province. (*b*) Tonnage dues are calculated upon the net registered tonnage, each ton being the equivalent of 2.83 cubic meters. (*c*) Light and buoy dues are not charged to vessels, but are paid only by the consignees or owners of the cargoes carried, and are collected from them in the customs at the rate of 100 reis per ton.

The tonnage dues for vessels in the over-sea trade are: Sailing vessels per net registered ton, 100 reis; steam vessels, 50 reis, and steam vessels trading between Portugal and Mozambique, 20 reis.

Outward freights from Lourenço Marquez have for years amounted to very little, and absolutely nothing has been shipped to the United States until recently. More attention is being given to this branch

of commerce, and coal, magnesite, lead, and concentrates from the Transvaal, tin from Swazialand, and mangrove bark, junk, and small quantities of rubber and other products have been shipped. During 1906 the Colonial Oil Company, of New York, whose ships, under the British flag, brought cargoes of naphtha, kerosene, and other petroleum products to this port, returned with valuable shipments, principally of mangrove bark, and it is expected that these shipments will grow in volume and will include copra, tin, and oily peanuts. It is also expected that the American timber ships which have gone away in ballast after discharging their cargoes of Oregon pine will in the future load with coal for islands in the Pacific Ocean and coast ports.

EFFECT OF A BRITISH STEAMSHIP TRUST.

The vessels that bring cargo, other than petroleum products, from New York are controlled by a British steamship trust or ring, which has raised freight rates considerably during the past two years. These vessels are not passenger ships, and they do not, as a rule, return to the United States direct, but generally go east for their return cargoes. There is a great need for a regular steam service both ways between New York and this coast that will carry first-class passengers and mail, as well as freight. Such a line, especially if its vessels sailed under the American flag, would have no difficulty in getting passengers if its rates were fixed at a reasonable figure, and it would be treated in the most hospitable manner by the Mozambique government.

Many African merchants have left their homes fully intending to visit the United States and have provided themselves with suitable letters of introduction to American business men, but as they were obliged to go first to Europe or England, because there were no passenger steamers running between South Africa and the United States, they have, almost without exception, been unable to carry out their plans, and have returned home without having visited America.

AN AMERICAN LINE NEEDED.

Considering all the circumstances surrounding the freight traffic between the United States and South Africa, it is clear that in order to meet the competition, and even the actual hostility, that a new American line will surely have to face from its older rivals who think they are entitled to a monopoly of the South African trade, such an American line must have assistance from the Federal Government; otherwise it will be sure to go the way of the Chargeurs Réunis, the Messageries Maritimes, and the British India lines that have been driven off this coast by the competition of the older lines. Such a line from New York, by means of coasting steamers of light draft and of not more than 2,000 registered tons, and with transshipments from the ocean steamers to the coasters in this port, could control the whole of the United States and South and East African trade all along this coast and as far north as Zanzibar. Such coaster steamers would be able to bring to Lourenço Marquez, for transshipment into the other steamers bound for New York, thousands of tons of East African products, the exportation of which to the United States at present is killed by the high coastwise freight rates, which are $5.50 per ton between this port and Inhambane, a distance of 300 miles; $8.50 per ton to Chinde, distance 700 miles; $10 per ton to the ports of Mozambique and Zanzibar, distance 940 and 1,510 miles, respectively.

PERSIAN GULF.

INCREASED TRANSPORTATION FACILITIES SHOULD STIMULATE TRADE.

Consul William Coffin reports from Maskat, in the independent Arabian country of Oman, on the improved transportation facilities of the Persian Gulf. He writes:

The Hamburg-American Line, whose new line of cargo steamers to the Persian Gulf was largely commented on by American papers last spring, has now got the service well under way. Their first ship arrived in Maskat on August 22, and the service has been continued monthly. The ships do not yet carry much cargo on the outward voyage, but they have been taking a good deal of freight out of the Persian Gulf, and have made an appreciable impression on the business of the Strick and the Bucknall lines of steamers, each of which has a monthly service between London and the Persian Gulf.

The Hamburg-American Company has made a substantial reduction in freight rates, just how much on all classes I am unable to state. Rates on dates, which is the only commodity shipped to America from Maskat, are 30 shillings ($7.30) per ton to New York by the Hamburg-American Line, against about 42 shillings ($10.22) by either the Bucknall or Strick steamers, via London.

The round trip for the Hamburg-American vessels occupies from three to three and a half months. Their outward bound ports of call are Antwerp, Marseille, Port Said, Suez, Port Sudan, Jibuti, Aden, Maskat, Bunder Abbas, Lingah, Bushire, Bahrein, Mahommerah, and Basra. American freight is transshipped either in Antwerp or Hamburg. They have four new vessels building, especially designed for navigation in the shallow, upper waters of the Persian Gulf. These will be about 4,000 tons net each, and should be ready for service about the middle of 1907.

With the addition of the Hamburg-American service, American shippers now have the choice of four routes to the Persian Gulf, namely:

(1) To Hamburg or Antwerp, thence direct to the Persian Gulf, by the Hamburg-American Line.
(2) To London, thence direct to the Persian Gulf, by either the Bucknall or Strick steamers.
(3) To London, thence via the P. & O. Line to Bombay, transshipping at Bombay to the steamers of the British India Steam Navigation Company.
(4) To Bombay direct, thence via British India Steam Navigation Company.

The trade of the Persian Gulf, of which Maskat should be classed as the first port, though it is not actually on the gulf, is steadily increasing. Very little American merchandise reaches the gulf direct. American shippers now have increased transportation facilities, with lower freight rates to the gulf, and should pay more attention to a territory that will, in future, develop largely in commercial importance.

JAPAN.

OPERATIONS AND PLANS OF A BIG COMPANY—NETWORK ON PACIFIC.

Vice-Consul-General E. G. Babbitt, of Yokohama, furnishes a Japanese newspaper account of the profits of the Nippon Yusen Kaisha

(Japanese Steamship Company) for the second half of the twenty-first business year—April 1 to September 1, 1906. The newspaper says:

The trade between Japan and other countries is beginning to increase steadily. The export of goods from China ports has been very dull on account of the advance of silver, but this has largely encouraged imports of Japanese goods, and every steamer to Shanghai and other north China ports on the outward voyage has been fully loaded with cargo, returning almost empty. The trade of Newchwang has been in part absorbed by Tairen (Dalny), and both voyages on the Newchwang line have proved unsatisfactory. Since the opening of a regular service between Yokohama and Shanghai by a foreign company in May last, freight on this line has greatly declined.

The increase in the Japanese settlement in Korea and the development of resources in the interior has called for an increase in the demand for Japanese goods, and steamers are obtaining large freights on both trips. A large freight business is anticipated on the Vladivostok line by the work of the restoration to the normal state of the port. In view of the situation of the marine business on Asiatic waters, the company has opened the new lines between Hongkong and Bangkok, Yokohama and Hankow, Kobe and Tairen, Osaka and Gensan, and Osaka and Chinnampo. The Hongkong-Bangkok line is a weekly service via Swatow. This line has hitherto been held by foreign steamers and the keenest competition is going on. It is very hard for the company to gain ground, and the company hopes to obtain success by working with perseverance.

A fortnightly service has been resumed on the European run, with twelve steamers.

LINE TO UNITED STATES—NEW STEAMERS.

The American service has been resumed with three steamers between Hongkong and Seattle, a monthly service under a contract with the Government. The noncontract service has been shortened to that between Japan and Seattle by two steamers. Two lines are maintained by the company between Japan and Seattle to make the service fortnightly as before.

The company has placed orders with Japanese shipbuilding yards for the construction of six steamers, each of 8,600 tons, and they are expected to be completed in the course of 1908. For the payment of the cost of these steamers, no loan will be raised, but the cost is to be drawn on a surplus so far accumulated and also on the reserve to be set aside for the depreciation of the value of steamers.

BRAZIL.

HIGHER TRANS-ATLANTIC CHARGES TO AFFECT AMERICA.

According to a report from Consul-General G. E. Anderson, it has been announced by all the steamship companies doing a trans-Atlantic business with Rio de Janeiro that an increase of 20 per cent in freight rates on goods for Brazil is to be immediately effective as a result of extraordinary conditions in the handling of goods in Brazilian ports.

The notice so far applies only to trans-Atlantic business, but it is generally understood that rates between Rio de Janeiro and the United States will be affected. This increase, coming upon what are among

the highest freight rates in the world for similar distances and shipping facilities, will certainly affect Brazilian trade materially and at once. It comes as a result of the conditions which have made the glut of goods in Brazilian custom-houses, especially in that of Rio de Janeiro, possible.

The freight situation affecting Brazilian ocean trade is very uncertain. The combination of shipowners, by which rates for freight have been kept up beyond what the shipping public regard as reasonable rates, has led to considerable dissatisfaction, and some of the heavy coffee shippers in Brazilian ports have been chartering ships for their own use as a means of fighting the freight conference lines. So far the independent steamers have had little effect upon the situation, and it is unlikely that they will be able to do much until there is a reform of present conditions in Brazilian ports. When cargoes can be loaded and unloaded with reasonable dispatch and convenience there will, undoubtedly, be enough of an influx of independent tonnage to force a reasonable reduction from present rates. In the meanwhile the course of the conference lines in increasing the rates 20 per cent is likely to lead to a notable crisis in the struggle for better shipping conditions.

GREECE.

NEW STEAMSHIP SERVICE PLANNED—HEAVY EMIGRANT TRAFFIC.

Consul-General George Horton, of Athens, advises that a new steamer line is to be established between The Piræus and the United States, mainly to accommodate the increasing tide of emigration, but which should aid in the introduction of American goods in Greece, Turkey, and the Balkan States. He writes:

D. J. Moraites, a shipowner of Andros Island, is having three new steamers built for direct communication between Greece and America. He hopes to do a good business in freight and emigrants, and will also have accommodations on each for 100 or more cabin passengers. The first ship, which is being built at Cumberland, will be of 8,500 tons dead weight and will be launched in April.

According to statistics of the Greek posts and telegraphs, there were sent from America into Greece during the third quarter of 1906 money orders to the amount of $532,000, or over five times as many as were sent for the same period of 1905.

Consul E. L. Harris also writes from Smyrna concerning this new line that a company has been formed to carry on a monthly service from the port of Smyrna, Turkey, to New York, calling at The Piræus and Naples. The first vessel of this line will start about April 1, and will carry on a bimonthly service until September, when the other vessel now building will be ready. The two ships of this line are of 8,500 tons each, with accommodations for 120 first-class passengers and 1,500 emigrants. They will be twin screw and of a speed of 15 knots, and it is expected that they will be able to make the journey in sixteen days. Both of these vessels carry refrigerating machinery, and it is expected that they will be able to carry a large quantity of fresh fruit from the Levant to New York.

ARGENTINA.

GOVERNMENT REJECTS STEAMSHIP LINE BIDS.

Minister A. M. Beaupré reports from Buenos Aires that bids were opened on October 1, 1906, for a steamship subsidy of not more than $25,000 gold, proposed by the Argentine Government under authority of a law of October 11, 1905, for a round-trip steamship service between that country and European ports. Three parties only were represented and the bids of all three were rejected.

While, in an executive decree explaining the rejection of the proposals, mention is made of possible future bids, the minister states that the opinion is general in the Argentine Republic that the matter is closed, in view of the fact that the more important steamship lines have improved their service and shortened the time of the voyage from Buenos Aires to the respective European ports of destination or call.

BUENOS AIRES TO PARIS IN TEN DAYS.

Consul Maxwell Blake sends the report from Funchal, Madeira, that the Argentine Government is shortly to cancel its present navigation contract between Buenos Aires and Europe, subsidized at $28,000 per voyage, the present company being unable to agree to the conditions recently imposed by the Government in its renewal requirements:

Three other companies—a French, the Italian Piaggio, backed by German capital, and an Italian-Argentine group—are now opposing one another for the award. The French group, formed of Chargeurs Reunis, Messageries Maritimes, and Transports Maritimes, proposed a voyage from Buenos Aires to Lisbon in twelve days, inaugurating a service of steamers equal to the luxurious trans-Atlantic liners. The Piaggio propose a fast emigrant service from Italian ports to Buenos Aires.

The French company, which seems to be the most favored of the three, is supported by the Bank of Paris and the Paris Union Bank, and has a capital of $8,000,000. It is said that the Portuguese Government is also making efforts to encourage this company and is soon to propose an additional subsidy with this end in view.

This quick service is to be operated in connection with the "Sud Express" from Lisbon to Paris, and will, if carried out, place the town of Rio de Janeiro at ten days from Paris, thus reducing the time now required for this journey by one-half.

PORTUGAL.

LINE TO BRAZIL AND ARGENTINA.

Mr. Charles Page Bryan, minister to Portugal, writing from Lisbon, December 24, 1906, to the Department of State, reports:

That the Portuguese Government has decided to inaugurate a line of steamers from Lisbon to Brazil and the Argentine Republic, with a subsidy of $2,500,000. To meet this expenditure it is proposed to place an additional tax on outgoing passengers as well as on freight shipped from this port.

PROPOSED SUBSIDIES FOR BRAZILIAN LINE.

Consul Maxwell Blake, of Funchal, advises that Portugal is about to grant additional ship subsidies. He writes:

It is asserted in Madeira that the bill to be presented to the Parliament in Lisbon creating regular trips from Portuguese ports to Brazil under the Portuguese flag entails that trips from the north ports of Brazil must be made by two steamers of not less than 3,500 tons each, and that trips from the south ports must be made fortnightly by four steamers of not less than 5,000 tons each. For these services the Government proposes to grant an annual subsidy of $156,000 and $228,000, respectively.

The Government calculates that to obtain the income necessary for this expenditure they will be forced to reduce present appropriations for light-houses $26,000 annually, and to increase the duty on all imported cargoes $240,000, and on exportations $122,000 annually. This export duty will be paid by both national and foreign steamers; and to superintend the service a court of mercantile marine is to be created.

CANADIAN ROUTE TO EUROPE.

PROPOSITION FOR A FAST MAIL LINE VIA IRELAND AND SCOTLAND.

Consul Alfred Moe, of Dublin, refers in a recent report to a plan to unite Canada and the European continent by means of fast steamers and fast trains. He writes:

A proposition is on foot for a projected mail service from Blacksod Bay, in County Mayo, in the northwest of Ireland, across the Atlantic to Canada and the Far East. The idea is to run a railway ferry between Stranrear in Scotland and Larne in Ireland. Passengers coming from England and Scotland, and the mails, would be shipped without change on board these vessels, and upon arrival in Ireland an engine would at once be attached to the train which would proceed via Collooney and Ballina, to Belmullet. At the harbor to be constructed passengers and mails would be placed on board the steamer en route for Canada, Japan, and China. While this all sounds very well, still it is a question whether any time could be saved in the transmission of the mails over such a route. The time now required for transshipment of mails in Ireland could scarcely be improved upon by the new method; changes from the land to the ship, the uncoupling of locomotives, the hauling of a heavy train on board the ferry steamer, a similar transaction at the other end of the voyage, would all require much more time than the present system of rapid transshipment of the mails while passengers are boarding the steam packet. The present arrangement of sending the mails from London via Holyhead and Dublin to Queenstown, thence by liner to New York, and so to Montreal and other Canadian points, is much faster than any other scheme would do it by way of Scotland and the north of Ireland.

ASIA.

CHINESE EMPIRE.

OPENING OF MANCHURIA.

BUSINESS ACTIVITY—GOVERNMENT ENCOURAGES ENTERPRISE.

Consul-General Willard D. Straight, of Mukden, reports that during the period that has elapsed since the conclusion of hostilities southern Manchuria has been adjusting itself to meet the changed conditions.

Years of prosperity during the construction of the railway and the early stages of the war, when the Russian forces relied almost entirely upon the country for their supplies, were succeeded by a period of comparative depression, for Japan made only limited local purchases, preferring to patronize her home markets, and the military occupation interfered in many ways with the free movement of goods. Trade has not, up to the present time, recovered its antebellum equilibrium.

The unsettled financial situation, due to the confusion in the circulating medium, composed of Japanese war notes, gold yen, Yokohama Specie Bank silver notes, Shengking notes and different varieties of taels, dollars, and small silver, and the reluctance of the banks to make loans, have combined to embarrass the public, nothwithstanding the splendid harvests of the past two seasons. The stringency of the money market is certain to diminish with the restoration of normal conditions, and under the influence of the present progressive administration there should be a great increase in production and purchasing power.

JAPANESE ACTIVITY—COMMERCIAL EXHIBITIONS.

It has been frequently stated that the Manchurian markets would be reserved for special exploitation and would not afford an equal opportunity to all those desirous of sharing in their profitable development. It is not unnatural that such should have been the case; that during the military occupation advantages not free to all were enjoyed by the privileged few. It would be a mistake, however, to consider that within such a limited period and during such a troublous time it would have been possible to establish relations sufficiently close to constitute a serious menace to the interests of the general commercial community.

Their priority of residence in southern Manchuria gives the Japanese a distinct trade advantage. They have not up to the present time, however, succeeded in obtaining a control of the market. Every effort is being made to popularize Japanese goods. By means of commercial and industrial exhibitions at Antung, Tiehling, and Mukden the chambers of commerce of the principal insular cities, with the substantial assistance of the Japanese Government, are bringing their wares to the direct attention of the consumer. Advertising agencies will be operated in connection with these enterprises, and the placards of the

Government tobacco monopoly posted throughout Manchuria and Korea bear eloquent testimony to their ability in this direction.

Up to the present time the principal business has been done by the Mitsui Bussan Kaisha and one or two other large firms which handle American piece goods, oil, and flour, as well as purely Japanese articles. The smaller merchants with limited capital are compelled to trade on short credits. There have been many failures and without special transportation privileges they are not in a position to withstand determined competition.

AMERICANS SHOULD ENTER THE FIELD.

It is imperative that American merchants and manufacturers who wish to engage in the Manchurian trade should enter the field at once and place their goods on the market before their competitors have become too firmly established. The commercial struggle will be keener than in the other Chinese provinces, where there has never been an active canvass in the interior. New methods will be adopted to secure the attention of the possible customer, and those firms will be the most successful which adopt the most direct and most aggressive plan of campaign.

Personal representation is all-important, particularly at the present time, not only that goods may be placed on the market under the most favorable circumstances, but that by constant vigilance valuable interests may be protected. Firms with offices at the points of importation, foreign representatives traveling in the interior, and native agents at Tiehling, Mukden, Liaoyang, Kuangchengtzu, and Hsimintun would be better able to watch the demand and cater thereto than the merchants who are content to make their sales from Shanghai, and remain in comparative ignorance of the local conditions governing the trade they are endeavoring to secure.

The British-American Tobacco Company have branches at all the important points along the railroad, with foreign representatives at Mukden and Tiehling, and a manager resident at Newchwang, who is constantly moving from point to point, keeping in close touch with the consumers. The company's sales have increased steadily, and in many places seriously threaten the profits of the Japanese tobacco monopoly. Arnhold, Karberg & Co., a large German firm which deals extensively in American piece goods, as well as the Singer Sewing Machine Company, have opened offices in Mukden, and the Manchurian Trading Company, with an American agent, is preparing to handle tinned goods, clocks, provisions, wines, and miscellaneous articles, for which there is a growing demand among the Chinese, and other importing houses are sending their representatives to look over the field.

DEMAND FOR AGRICULTURAL MACHINERY.

The Board of Agriculture established by the Viceroy has ordered a number of American harvesters, plows, reapers, harrows, hullers, and other farm machinery, to be used at its agricultural experiment station in Mukden. Labor-saving devices would be welcomed in Manchuria as nowhere else in China, for the population is scant as compared with other portions of the Empire. The Liao Valley is one of the richest agricultural areas in the world, and the broad plains stretching from Newchwang to the north are capable, with improved methods, of greatly increased production. Rye, barley, and sorghum millet yield

large annual crops, and it is proposed to introduce alfalfa, sugar beets, cotton, and various cereals.

Several of the highest provincial authorities have suggested that it would be mutually beneficial if manufacturers of agricultural machinery should send their representatives with a number of implements to tour the country, demonstrating their use at frequent exhibitions. Such an enterprise would meet with the approval of the Viceroy, and could doubtless be undertaken under the auspices of the provincial administration. The Chinese farmer is a ready purchaser when once he is convinced of the utility of an article.

A British firm has already sold four large Howard steam plows, shipping them north from Newchwang. Tracts of Government land are now being opened for cultivation. The large grain firms would doubtless be ready to invest in hullers for cereals, and a machine which would remove the beans from the pod would meet an already existing demand. The officials and merchants interested in such projects who have already requested catalogues would be more inclined to buy if they were to be given a practical lesson in the operation of such machinery.

MANCHURIA IS VIRGIN TERRITORY.

In the other treaty ports of China there are old established firms with regular connections, and at such places it is not always easy for the newcomer to build up a paying business. Manchuria, however, is practically virgin territory. There are opportunities for trade as well as for investment. The Japanese market requires sugar, their breweries require barley, and flour mills should be operated with profit at points along the railroad. American goods have heretofore been sold in Manchuria largely by foreign firms and by native hongs which purchase their stocks in Shanghai. If direct shipments were to be made to Dalny or Newchwang, there would be a saving in time and transshipping charges. Agricultural development should be followed by industrial activity, and those merchants who avail themselves of the desire of wealthy Chinese to associate themselves with foreigners and study local conditions should be well rewarded.

RICH MINING POSSIBILITIES.

This consulate-general has just recently received information, apparently trustworthy, that there are large deposits of gold, silver, soda, and coal, with a plentiful supply of timber, in the area between the headwaters of the Liao and the Taluho, a branch of the Amur, about 200 miles from the terminus of the China Eastern Railroad at Hsinmintun.

Japanese and Russian prospectors have visited this region, but have not thus far recorded claims with the officials of the district. Investors who are desirous of looking into this matter more thoroughly might find the opportunity a valuable one, and the undertaking profitable, particularly under the new Chinese mining regulations, which it is hoped will offer more liberal terms to foreigners than do those which are now in force.

COMMERCIAL MOVEMENTS.

EXPOSITIONS AND RAILWAYS TO DEVELOP CHINA'S COMMERCE.

Special Agent W. A. Graham Clark calls attention to the two impending industrial exhibitions at Mukden, in Manchuria. He inspected

the work on these and found that progress was being made on both. The Japanese industrial exhibition was to open in January.

The Japanese exhibition will last three months, showing a varied line of manufactures, especially those that the Japanese desire to introduce into Manchuria. Though not a large affair, the exhibition is important as illustrating the fact that Japan is sparing no pains and neglecting no opportunity of advertising the country's products in China.

The grounds are entered by a large ornamental gateway. The buildings are all one-story brick, one large building, containing about 10,000 square feet, being in the center of the grounds surrounded by six or seven smaller ones, each about 30 by 50 feet. The central building is reserved exclusively for Japanese products, but foreigners are allowed space in the outbuildings. An American merchant just establishing himself at Mukden secured space for a booth at a cost of only $7.50 for the three months.

The Chinese industrial exhibition will be a larger affair, and is to be permanent. If the buildings can be finished in time it will open March 1. There will be three or four large buildings two stories high and built of black brick, the total floor space aggregating about 50,000 square feet. This exhibition was originally intended for the display of Chinese articles only, being educational in its purpose. It was proposed to exhibit products of the other provinces of China, and to illustrate the methods of production and manufacture. The Chinese now announce, however, that foreigners can also obtain space through their respective consuls. [An American consulate-general was recently established at Mukden.] The space rates have not yet been fixed, but they will be low. As in the Japanese exhibition, articles will be for display only and not for sale, but they will both afford a good opportunity for the exploitation of American manufactures.

ADOPTION OF MODERN MECHANISMS.

Manchuria will prove a good field for the exploitation of farm implements, such as plows, grain drills, etc.; of small tools, such as monkey wrenches, braces and augers, emery wheels, etc.; of machine tools, such as small wood-turning lathes and drill presses; of small gas and oil engines; of portable sawmills; of hydraulic presses for compressing bean cake and baling hides, etc.; of stock and dies for making small machine bolts, etc.

The large and fertile fields of Manchuria are tilled with wooden plows. The vast number of well-made carts that are turned out are constructed with crude tools, laboriously fashioned in the local blacksmith shop, and a day is taken to put in shape iron fittings that an expert machinist, with good cold chisel and emory wheel, would finish in half an hour. The borings are made with hand-fashioned augers, operated with a bow and cord. Labor is cheap, but already foreign inventions are creeping in, and if properly introduced there are a great number of articles made by American manufacturers that would find a good sale here. The Chinamen are conservative, and first have to be familiarized with the appearance and use of the new articles, and for this purpose exhibitions are valuable.

At Mukden, where the Japanese are macadamizing the streets, the writer saw two Chinese men operating a big English-built street stone crusher while other Chinese stood around admiring their skill. Ten years ago or less these same Chinese would have fled at the sight of

a street roller at work. Ten years from now these men will macadamize their own streets, build their own railroads, operate machine tools, and use the latest farming machinery. Whose will be the profit depends on whose labor-saving and advanced appliances gains the first hold on the country.

RAILWAY EXTENSIONS—A COMMERCIAL CENTER.

It is expected that work will be begun in the spring by the Japanese to widen their railway track from 3½ feet to the standard American and English gauge, 4 feet 8½ inches, which will also enable it to connect with the Chinese railways. The Japanese track to Kwanchengtze will therefore be the standard gauge, and the Russian 5 feet. All passengers will therefore have to be transferred at this neutral station.

The Chinese Government also purposes in the spring to begin active work on a standard-gauge line from Kwanchengtze to Kirin, a distance of 80 miles. The Japanese desired to build this line, but piles and cross-ties have already been stacked en route by the Chinese, and a Newchwang merchant informs the writer that he sold the Chinese authorities a sawmill for this work. This line will also connect at the neutral station, so the roads of three nations—Russian, Japanese, and Chinese—will meet at Kwanchengtze. Though this station will be nearly 3 miles from the present walled town of Kwanchengtze, the effect will be to greatly enhance the importance of this place, and will strengthen its present practical position as the largest interior distributing market in Manchuria.

PEIHO RIVER TRADE.

FOREIGN GOODS TRANSACTIONS AT TIENTSIN AND CHINGWANGTAO.

Consul-General J. W. Ragsdale, of Tientsin, reports on the foreign trade of that important Chinese port, and also that of Chingwangtao, as follows:

Owing to the late date at which the Peiho River opened in the spring of 1906 to allow ships to come up to Tientsin, and because many of the consignments due in the late autumn arrived during the winter months, Chingwangtao's figures would indicate a greater volume of business in piece goods during the first six months of 1906 than for the same period of the previous year. The following comparative statement shows the imports of the leading articles into both cities during the periods mentioned:

Articles.	Tientsin.		Chingwangtao.	
	1905.	First six months 1906.	1905.	First six months 1906.
Cotton goods:				
Cambrics ..... pieces..	43,961	12,195	.....	.....
Drills ..... do....	902,132	198,336	321,063	188,148
Handkerchiefs ..... dozens..	83,456	73,204	15,412	35,592
Italians ..... pieces..	296,518	90,305	77,650	158,670
Jeans ..... do....	183,533	47,420	58,573	53,163
Lastings ..... do....	190,461	69,180	24,968	56,152
Sheetings ..... do....	2,274,148	733,092	998,137	569,326
Shirtings ..... do....	1,527,924	503,109	333,356	507,463
Yarn ..... pounds..	33,388,933	12,026,533	23,621,333	15,286,266
Glass, window ..... boxes..	32,412	24,086	3,975	3,785
Matches ..... gross..	7,304,486	1,943,818	362,600	13,235
Needles ..... mille..	1,095,780	278,400	75,501	156,000
Oil:				
American ..... gallons..	6,832,190	1,321,785	626,770	51,000
Russian ..... do....	2,108,580	.....	26,000	.....
Railway materials ..... value..	$2,641,660	$656,826	$123,301	$87,593

The declared exports to the United States from Tientsin for the fiscal year ended June 30, 1906, amounted to $5,013,286. The principal articles were: Wool, valued at $3,087,834; straw braid, $138,209; skins, all kinds, $1,261,906; mats, $146,234; jute, $112,683; and bristles, $431,471.

DISADVANTAGE FOR AMERICAN PRODUCTIONS.

During the past ten years American goods have no more than held their own in the general increase. This is largely due to the fact that American goods are chiefly handled by foreign firms and that there are so few Americans here to push the sales of their products, while the other producing nations are represented by energetic selling agents who naturally prefer to handle the products of their own countries unless there is an absolute demand for the American article or unless they can reap larger profits therefrom.

Several features of this market differentiate it from the great central market at Shanghai. There practically all of the Chinese who buy from the foreign "hongs" are simply brokers, either purchasing for an established clientele or for the general trade, and generally distribute only to wholesalers; whereas here the men with whom the "hongs" come into touch are dealers who sell at wholesale in smaller quantities or even have their own shops for retailing. The fact that these local dealers have a much more limited capital than the broker of the Shanghai market makes for Tientsin a different system of settlements and deliveries. In Shanghai the goods are not allowed to be taken from the storage godowns until they are paid for, although this does not mean that a whole consignment contracted for must be taken up at the same time. On the other hand, in Tientsin the price quoted covers everything up to the time of delivery, and the buyer takes the cargo immediately upon arrival, is given sixty days in which to make payment, and is charged a certain rate of interest agreed upon between himself and the "hong."

EXCESS OF PURCHASES—AMERICAN NONDELIVERY.

The market throughout the greater part of 1905 was most peculiar. While the earlier buying and the spring deliveries had represented imports for legitimate needs, the persistence of many of the dealers in buying for six months' deliveries on a constantly rising price, when they knew of the big stocks that had collected at Shanghai and must come upon the market at a sacrifice, indicated what has since become known as an unusual degree of hysteria for these Chinese merchants. Stocks began accumulating during the winter and spring of 1906, until now there is an abnormally large supply in the godowns of both the foreign "hongs" and of the local dealers. Since the rains came in July, however, a slightly healthier tone has prevailed.

According to the statements of leading men in this market, one of the chief causes of the present congestion was the failure of the American mills to make deliveries according to the terms of their agreements at a time when the goods were needed here. As was natural, the large native dealers took advantage of the occasion to bring in from Shanghai the goods necessary to meet the demand, and thus left their smaller competitors with their late arriving stock on their hands, a part of which has since been sold at a great sacrifice. The only thing that saved the whole situation was the fact that the

home prices continued throughout the year uniformly high. This feature has saved the American manufacturer and dealer many thousands of dollars.

JAPAN.

DEVELOPMENT OF FORMOSA.

TRADE WITH JAPAN INCREASING BUT DECREASING WITH OTHER NATIONS.

Consul J. H. Arnold, of Tamsui, Formosa, furnishes a report on the foreign trade of that island, under Japanese Government, as follows:

The total foreign trade of Formosa during 1905 amounted to $24,309,549, an increase of $1,492,591 over 1904. The trade with foreign countries amounted to $10,791,174, and with Japan $13,518,375, a decrease of $1,773,150 for the former, and an increase of $3,265,741 for the latter. The imports in 1905 from foreign countries amounted to $5,460,011, and the exports thereto $5,331,163; imports from Japan, $6,714,948, and exports thither $6,803,427. The exports are shown in the annexed table:

Articles.	Foreign countries.		Japan.	
	1904.	1905.	1904.	1905.
Camphor	$1,095,259	$1,022,360	$427,634	$314,034
Camphor oil			615,371	575,914
China grass	228,241	250,104		
Rice	1,263,010	295,610	1,765,989	2,641,305
Sugar	111,295	12,814	1,187,091	2,919,989
Tea	2,883,505	3,104,662	95,800	57,138
Other articles	589,470	645,613	402,906	295,097
Total	6,170,780	5,331,163	4,494,791	6,803,427

Imports, by countries, in 1905.

Country.	Value.	Country.	Value.
United States	$572,929	Germany	$71,681
Japan	6,714,948	Australia	30,541
China	2,675,616	Other countries	546,049
United Kingdom	818,175		
India and Straits Settlements	592,929	Total	12,174,969
Turkey	152,101		

The imports from all countries increased 6 per cent, except those from Japan, which increased 24 per cent. About 50 per cent of the imports from Japan were divided between cotton tissues and cigarettes and tobacco. The principal articles of import from all foreign countries and Japan, during 1905, are shown in the annexed table:

Articles.	Foreign countries.	Japan.	Articles.	Foreign countries.	Japan.
Animals: Hogs	$115,267		Oil, kerosene, etc	$333,865	$90,512
Chemicals, drugs, etc		$87,869	Opium	959,834	
Cotton, and mfrs. of	546,880	1,069,366	Paper	252,075	162,492
Fish		312,710	Rice	176,602	150,751
Flour, wheat	111,320	97,801	Sugar	736	161,803
Glassware, etc	78,359	35,338	Tobacco and cigarettes	260,189	484,881
Iron and steel mfrs		181,406	Wood, manufactures of	259,970	417,274

The imports from the United States amounted to $572,929, a decrease of $150,190 from those of 1904. The articles of import were: Flour,

valued at $111,301; mechanical appliances, $22,435; ginseng, $37,718; railroad supplies, $47,589; material for bridges, $26,673; kerosene, $296,425; and all other articles, $30,788.

OPPORTUNITIES FOR AMERICAN GOODS.

American manufacturers of sugar machinery should bear in mind that the sugar industry in Formosa is growing rapidly and that within the next few years many large sugar mills will be constructed, and also there will be a demand for tramway materials.

The recent concessions made by the government for the exploitation of the forests in the Mount Ari district will create a demand for sawmilling machinery, logging equipments, and railway supplies. In addition to the bridges and other railway materials required for the completion of the main line of the Formosan government railway there will also be a demand for such materials for the projected line from Taihoku to Gilan. There will also be a market for electrical machinery, and the sales of American bicycles, watches, clocks, and notions could be extended far beyond their present figures if a more strenuous effort were made to extend the trade.

INDIA.

SILVER DEMANDS.

TAKES HALF OF WORLD'S SUPPLY—PRICES AFFECTED.

A report from Consul-General Michael states that India has been importing large amounts of silver. He says:

In 1905 the total amount sent to India for circulation was $37,500,000, and for 1906 up to September 27, the amount was $62,500,000. This increase may be ascribed to the activity of trade. It is worthy of note that India absorbed about one-half of the 1905 total production of silver. She used more silver than the United States produced, nearly 59,000,000 ounces. When it is considered that India takes half of the total output, which is 170,000,000 ounces, and that 60,000,000 ounces are used in the arts, it is not surprising that the remainder of 25,000,000 ounces for the monetary supply of the world has nearly doubled in price within a comparatively short space of time.

India will continue to require more and more silver as the trade increases, and if the needs of China and other silver-using countries also increase their demand, where will the increase in price of silver stop? India produces no silver and must depend on the mines of other countries for this metal, and the fact that she absorbs so large a portion of the total output makes her an important factor in any consideration of the future of silver.

PEARL FISHING PROFITS.

RESULTS IN CEYLON FROM LEASED GOVERNMENT BANKS.

The pearl fishery at Ceylon, the leasing of which by the Government provoked much comment recently, has been made the subject of a report from which Consul-General Michael derives the following figures:

The total revenue derived from the fishery and camp amounted to $875,392, and expenditure $73,510; and the net profit was $801,882—

over $111,000 in excess of that of 1904, which was the previous highest on record. The inspector of pearl banks anticipated an excellent fishery in 1906, but that after a probably small fishery in 1907, and perhaps 1908, another break in the fishery cycle was likely. A lease of the fishery was given to the Ceylon Company of Pearl Fishers (Limited), for a period of twenty years from January 1, 1906, for a sum of $103,333 per annum, it being stipulated that a sum should be annually expended by the company upon the improvement of the fishery of not less than $16,666, to be increased at the discretion of the Government to any sum not greater than $50,000, and that all the expenses of the supervision and protection of the fishery camp by Government should be borne by the company.

It is stated that the Pearl Fishers of Ceylon (Limited) shows a profit of $256,960. Dividends of 36 cents on the ordinary shares and 18 cents on the deferred shares are to be paid; $49,628 is set aside for depreciation and reserve, and $77,382 is to be carried forward.

CINCHONA CULTIVATION.

CHEAP QUININE FOR BENGAL.

Referring to his former report on the encouragement extended by the British Indian government to the cultivation of the cinchona tree and the production of quinine in India, Mr. Michael writes:

The government of Bengal has taken steps recently to extend the cultivation of cinchona and the manufacture of quinine at Sonada. The new plantation opened four years ago is now beginning to send good quantities of bark to the factory, and a further extension is now under consideration, which will make it unquestionably the finest cinchona estate in the world. The factory is at present being enlarged and equipped with additional machinery, so that ere long the output of quinine will be considerably increased, and fresh outlets for its distribution will be arranged for, thus placing packets of this precious medicine within easy reach of the poorest farmer of Bengal, the price of the packets being fixed at 1 pice each, which is one-half of a cent.

STRAITS SETTLEMENTS.

IMPORTS SHOW INCREASES—AMERICA'S SHARE DECREASES.

Vice-Consul G. E. Chamberlain, writing from Singapore, gives the foreign trade of the Straits Settlements for the first six months of 1906, as follows:

While the imports into the colony show a substantial increase in gold value, in local currency they show a loss of $5,792,617. This is due to the advance in exchange from 1 shilling 11 pence (shilling = 24⅓ cents; pence = 2 cents), the average rate for the first six months of 1905, to 2 shillings 4 pence, the value of the Straits dollar for the same period of 1906. The total imports in the first six months of 1905 amounted to $82,785,028 gold, and $89,475,366 gold for the six months of 1906.

The imports from the United States show a decrease as compared with 1905, which is largely due to the Chinese boycott. While the

boycott was organized a number of months earlier it did not affect imports from the United States until the beginning of 1906, when goods commenced to arrive that were ordered after the boycott was organized. The imports of flour, lard, oilman's stores, tobacco, and a number of other lines have felt the effects of the boycott, while lubricating oil, machinery, and a few other articles show substantial increases. The imports from the United States during the half year amounted to $652,983 gold. The leading articles were: Machinery, valued at $45,958; carriages and parts, $8,019; cigars and cigarettes, $96,606; lard, $16,286, a decrease of $254,293 compared with that for the six months of 1905; oilman's stores, $14,110; petroleum, $135,316; lubricating oil, $203,778, an increase of $85,270; nails, wire, etc., $13,469; and flour, $10,539, a decrease of $530,859.

The exports to the United States for the six months amounted to $9,593,391, and consisted of the following principal articles: Tin worth $6,120,276; rubber, $461,216; rattan, $409,019; pepper, all kinds, $582,275; gambier, $568,063; and tapioca, $355,121.

TURKEY IN ASIA.

SYRIA.

INCREASED SALES OF AMERICAN PRODUCTS.

Consul Jesse B. Jackson writes from Alexandretta, relative to the sale of American products in Syria, that, while no figures for the calendar year 1906 are as yet obtainable, all indications point to a large increase in the sale of goods from the United States throughout that entire consular district.

Up to this time such imports have been composed mostly of leather, rubber overshoes, agricultural implements, sewing machines, petroleum, and some provisions, but there is an opening for many other articles, such as oilcloth, cotton and woolen goods, paints and varnishes, hardware, wood and iron workers' tools, machinery, beer, flour and other provisions, etc.

There is no good reason why a much larger amount of American products should not find a ready market in Syria if efforts were made to meet the requirements of the trade. The absence of direct shipping lines between Syria and the United States is the most serious impediment to the growth of the trade, and long and expensive freight routes with hazardous transshipments necessitates that special care be given to packing. This is a very important matter for consideration, for if packages arrive broken the contents are many times absolutely worthless.

Another serious obstacle is the question of credit, which is invariably expected and demanded. A certain amount of goods will sell on payments "against documents," but to develop any considerable amount of business it is essential that some credit shall be given. As practically all goods are imported through commission houses, a list of the more important ones is furnished [on file at Bureau of Manufactures], with whom correspondence in French will be most satisfactory.

SMYRNA.

GOOD MARKET FOR SPORTING GUNS—KIND OF ARMS WANTED.

Consul Ernest L. Harris writes from Smyrna regarding the use of firearms in Turkey, explains the character of arms used and the prices at which sold, and points out that there is a fair opportunity for the sale of American arms of this class. He says:

In Smyrna a large trade is done in sporting guns. Shooting licenses cost but a few cents. In the surrounding country game is abundant. There being few or no preserves, even the very poorest go hunting. At present the trade is practically controlled by Belgium, which supplies a cheap fowling piece of rather heavy make but very durable. The guns chiefly sold are central fire breech-loaders, and usually have one barrel cylinder and the other choke bored, and are of either .12, .20, or .28 caliber. The prices range from $12 and upward. Single-barreled guns of small bore are occasionally sold for ladies' use. Larger bores than .12 caliber are not imported.

A few guns of English make are imported, and although their quality is much superior to the Belgian article their cost limits their sale to only the more wealthy classes. As the importation of rifled arms is strictly prohibited, the Ottoman custom-houses will only permit the usual double or single barreled guns to pass, and for this reason repeating shotguns of the Winchester and other types, which are only allowed to be imported after being submitted to the ordnance department of the ministry of war in Constantinople, where they are examined to see that they are not rifled, are not imported. There is also a considerable trade done in cheap muzzle-loading guns, costing from $7 upward. These are chiefly used by peasants living too far from town to obtain cartridges. No guns are made locally, although I am informed that in Armenia a considerable quantity are made by local gunsmiths for use there.

POWDER AND CARTRIDGES.

The sale and manufacture of gunpowder in Turkey being a Government monopoly it can be obtained only from the depots of the grand master of artillery and then only in limited quantities by those possessing a shooting license. It is claimed that foreign manufactured gunpowder is smuggled in chiefly from Greece and can usually be bought at the various gunsmith stores. Cartridges are all imported. The cheapest come from Austria and a superior article from England. The cartridge shells imported from Austria for sporting guns sell retail as low as 27 cents per hundred and are the cartridges most generally used except during the winter when owing to the damp their flimsy construction renders them unsuitable for general use. Those cartridges having large percussion caps are mostly preferred. Ordinary shot is imported from Germany and chilled shot from Newcastle in England. None is made locally.

Although an Ottoman law, promulgated many years ago, distinctly prohibits the importation of revolvers and cartridges, they can be bought at any gun store. It is claimed that they are chiefly imported from Belgium and smuggled into the country by expert smugglers, who receive as much as from $1 to $2 for smuggling each pistol. A few revolvers of American make are also brought in. Nearly all the

turnover machines for cartridges are imported from America. Owing to the number of wild boar and other large animals against which shot is of little use, sporting guns for this market should have at least one barrel cylinder bored, in order that solid bullets may be used in case of need.

AMERICAN FURNITURE.

Consul Harris advises that American manufacturers of cheap furniture would do well to turn their attention to Smyrna, where bentwood chairs and settees are imported to the extent of $30,000 per annum, chiefly from Austria. The styles of chairs mostly sold in Asia Minor are with the wooden part either stained ebony or yellow, cane seated, having no cane work on the back rest, which is simply of the bent wood. The prices range from $0.79 to $1.22 each, c. i. f. Smyrna, with a discount of 40–50 per cent, payments being made on acceptances at four months' date from shipment. A small quantity of machine-made furniture is imported, but, although cheap, it is generally so inartistic that the average native, who usually is not hard to please, purchases local made furniture in preference.

AMERICAN SEWING MACHINES IN SMYRNA.

At present the annual importation of sewing machines into this consular district exceeds 4,000 machines per annum, valued at $60,000. The market is chiefly supplied from America and Germany. The American machines imported are high priced, but, although costing nearly twice as much as the German article, have, through their splendid wearing qualities, earned a reputation of being well worth the difference in price. There is another factor which largely militates in favor of the American machine, and that is the ability to purchase on the hire system, which has, as yet, not been introduced by the sellers of German machines. There is, however, a demand for a cheap machine for plain sewing, which is now being supplied by German manufacturers, who export a hand machine which sells on the market here at from $8.80 to $10 each. The Turkish customs duty is 8 per cent ad valorem.

EUROPE.

GERMAN EMPIRE.

BAKE-SHOP REGULATIONS.

GOVERNMENT OVERSIGHT OF BREAD MAKING.

Vice-Consul W. C. Schneider reports from Freiburg the latest step of the German authorities in seeking the health of the German people in their watchfulness to guarantee to them a good supply of pure, clean, and wholesome food.

The grand ducal ministry of Baden on October 1 put into effect the following regulations pertaining to the sanitary arrangement and operation of bakery shops:

1. The floor of the working rooms must not lie more than one-half meter (19.68 inches) below the level of the surrounding ground. This depth may be increased to 1 meter (39.37 inches) when a proper opening for ventilation and light in the shape of a trench or hole at least 1 meter (39.37 inches) wide, and whose bottom is at least 0.15 meter (5.9 inches) lower than the floor of the room, is provided.

The district police department may, upon request, allow other exceptions to this rule, if sufficient provision for a good supply of light and air with proper insulation of the floor is made in other ways, so that the demands of health and sanitation are satisfied.

2. The working rooms must be at least 3 meters (9.84 feet) high, and be supplied with windows in sufficient number and size to insure a plenteous supply of light and air. The windows must open into the open air, and must be arranged so they can be opened for ventilation. In proper cases, where the local building regulations do not require higher rooms for living purposes, the police department may permit the use of rooms with a height of only 2.5 meters (8.20 feet) for bakeries.

3. The rooms must be provided with a good, close-fitting floor, which will keep out the dampness of the earth below. All walls and ceilings which are not provided with a smooth washable covering or painted with a waterproof paint must be whitewashed at least once each year, while if a waterproof wall covering is used it must be renewed every fifth year.

4. Closets and lavatories must not be directly connected with the working rooms, and sewerage pipes must not be led through them.

5. The rooms in which the dough is mixed and bread and pastries prepared for baking must be of such size that there are 15 cubic meters (19.62 cubic yards) of air space for each man employed therein. When, as in the case of special holidays, more men than is usually the case are temporarily employed, this requirement may be reduced to 10 cubic meters (13.08 cubic yards) per person.

6. The workmen must be given opportunity to store away and keep their working clothes in clean places, and must be provided with a warm and dry place to wash and dress.

7. Before beginning work and before preparing and mixing the ingredients the persons engaged in the work must wash their hands and arms thoroughly in clean water. For this purpose sufficient wash basins, etc., together with soap and towels, must be provided, and for each workman engaged at least one fresh towel a week must be furnished. When running water is not present a washstand or basin must be provided for every five persons employed. Sufficient pure water must be present, and the possibility of removing the water immediately, either by drains directly from the basins or from an adjoining room.

8. The supplies of flour must be stored in dry places, where they are protected from all contamination. Kneading or working the dough with the feet is strictly

forbidden. Water used to coat the bread must be provided fresh every day. The bread and pastry must not be laid on the bare floor.

9. It is strictly forbidden to sit or lie on any of the tables, shelves, etc., which are intended for use for the dough or baked articles. Chairs and benches in sufficient number must be provided to sit on.

10. The working rooms must be furnished with cuspidors, at least one in each room, which must be cleaned daily. Spitting on the floor is forbidden. Smoking, snuffing, chewing of tobacco, etc., is forbidden in the working rooms while work is in progress.

11. The working rooms must not be used for any purposes other than those strictly connected with the preparing and baking of foods; especially must they not be used as washing, sleeping, or living rooms.

12. The working rooms must be kept free from insects of all kinds, and otherwise kept in a clean and neat condition, and they must be thoroughly ventilated at least once each day. The floors must be washed each day, and the walls, as far as they are not whitewashed, must be cleaned every three months. The tables, utensils, dishes, pans, troughs, clothes, towels, etc., which are used in the bakery, must be kept in a clean and wholesome condition.

13. Persons employed in the establishment must, while working, wear sufficient clothing.

14. Persons having contagious or loathsome diseases must not be employed in bakeries.

15. In every bakery shop a copy of these regulations must be hung on the walls, as also a certificate of the local police showing: (a) The length, width, and height of the rooms; (b) the number of cubic meters of air space contained in the rooms; (c) the number of persons who, under sections 5 or 16 of these regulations, may be employed regularly in the rooms.

16. The district police department may, in the case of shops at present existing, as far as these are not changed or altered after these regulations go into effect, allow exceptions to paragraphs 2, 4, and 5, if the workmen are in other ways protected against danger to health.

FAULTY AMERICAN METHODS.

DELAY AND INDIFFERENCE CITED IN THE FOREIGN FIELD.

Consul H. W. Harris, of Mannheim, gives the following concrete examples of the cumbersome methods sometimes adopted by foreign agencies.

The consulate has knowledge of an American resident of this district who desired an American file case for his office. He applied to the local agent in the town in which he lives and was told that application to the agent at Berlin for price would be made. Six days later price was furnished with the explanation that he had to write the agent at Frankfort. The Frankfort agent wrote Berlin and the answer came back through the same channels. He further added that the case could be delivered in three weeks. All this between two cities scarcely 250 miles apart.

The same American desired a typewriter and there being no agent in the town where he lives for the machine to which he was accustomed he wrote the factory in the United States explaining why he wrote and he wished that particular machine. Three weeks later he received a brief letter from the Berlin agent stating that the machine was an excellent one which he was prepared to sell at a certain price. Of effort to sell, or to follow the matter up there was none. Similar facts must have come within the observation of all Americans living abroad. American products known everywhere in the United States are kept before the public there by the constant expenditure of large sums for advertising. The same goods are offered in a foreign market and take the chances without any advertising matter whatever.

But the case as a whole is by no means a discouraging one. On the contrary no one can survey America's foreign trade without seeing

abundant evidence of the splendid organization and enterprise which have pushed it forward. That the limits have been even approximately reached, no intelligent man will believe. Rather does such survey give a faint forecast of what this trade will be when this same organization and enterprise have been carried into all fields as they have in some.

AERONAUTIC SCHOOL.

WILL OPEN AT CHEMNITZ IN MAY—LINE OF INSTRUCTION.

Consul Thomas H. Norton, of Chemnitz, records another step in aerial navigation. Writing December 20, 1906, he reports:

Arrangements have just been completed to establish at Chemnitz a training school for aeronauts and constructors of air ships. A similar school has been in operation in Paris for a year past. The Chemnitz institution will be the second enterprise in the new pedagogical field. A one year's course is contemplated for the present, the school to be opened in May, 1907. This course, at the outset, is limited to the construction and use of balloons. It will be enlarged so as to include aeroplanes, as soon as practical working types have been developed.

The successive divisions of instruction during the year's course are as follows: Calculation of volume of balloons; methods of cutting the material; methods of rendering the material impermeable; construction of nets; gases used for inflation; the general theory of balloon construction and use; scientific instruments used in balloon ascensions; meteorological observations; ascents alone; ascents with passengers; special instructions for passengers; methods of landing, and the applications of air ships. The tuition for a year's course is 600 marks, or $143.

AMERICAN BARBER CHAIRS.

GOOD OPPORTUNITY FOR INTRODUCTION.

Consul Pendleton King, of Aix-la-Chapelle, having had considerable opportunity for observing the barber shops in Germany, has found American chairs in only one shop, and therefore offers the following suggestions to American manufacturers:

In Germany they use ordinary chairs with a prop for the head, which are less comfortable and convenient than American chairs. On account of the greater cost of American chairs it might prove difficult to bring them at once into general use, but they might find a sale in the shops of leading hotels. In Baedeker's well-known guide books (his "Deutschland," for example) are given the names of the different hotels in the different cities, and descriptive catalogues could be sent to the hotel shops. If once in general use in the hotel shops, they would doubtless be gradually introduced into other shops.

USE OF PEAT.

HAS GREAT VALUE AS STOCK FOOD, FUEL, ETC.

Consul Jay White, of Hanover, transmits a report on the use of peat in Germany for bedding, fodder, filter, fuel, and packing purposes, the consumption of which is constantly increasing. He obtains the

following information from manufacturers of the machinery and products:

For bedding for stock only the second and third layers of peat are used. The blocks of peat are dried by air or in a kiln; they are then shredded by a machine called a "Reisswolf." The dust is then taken out by sieves, after which the peat is compressed and packed in bales by means of slats of wood and iron wire. The cost of manufacturing is 27 to 29 cents per 110 pounds. It is stated by one in authority that the amount of peat bedding necessary per head of cattle is one hundredweight per year for every hundredweight of the animal's weight. Many sanitary and other advantages are urged for the use of peat as bedding.

For peat fodder only the top layer is used, consisting of moss and the fibers of partially dried parts. The dried peat is ground and sifted and mixed with molasses in the proportion of 20 to 25 of peat and 70 to 75 of molasses, obtained in the manufacture of sugar from beets. The product is guaranteed to contain 35 to 40 per cent of sugar. This fodder is used either alone or mixed with other food, as corn, potatoes, etc. The peat in this mixture counteracts the laxative effect of the molasses, and the whole forms a wholesome food for horses, neat cattle, and swine, and as the acid of the peat seems to neutralize the alkalies of the molasses, the latter are rendered harmless and the mixture has a sweeter taste than molasses alone. When due precaution is taken the mixture keeps perfectly well. Horses fed with this develop glossy coats, gain in appetite, and are free from colic. Neat cattle are said to become less subject to "foot-and-mouth diseases," while in the case of swine thus fed, it is said that the unpleasant smell of butyric acid disappears from the sty and disease generally diminishes. The addition of 4.4 pounds to the daily feed of milch cows is said to increase the daily yield of milk 0.55 gallon. In the province of Hanover from 10,000 to 15,000 tons are used every year, while the whole of Germany consumes 150,000 to 200,000 tons.

The value of peat for fuel is shown in the fact that it contains 54 per cent of carbon against 50 per cent in wood, 70 per cent in soft coal, and 83 per cent in hard coal. In peat for packing 15 to 20 per cent of dust, the so-called "Torfmull," is sifted out; this is used for packing fruit, such as tomatoes and other products. "Mull," a by-product of peat, is much used in potash works as a filter.

TRADE PROMOTION.

GOVERNMENTAL AID TO FOREIGN COMMERCE AND COTTON GROWING.

Consul-General Richard Guenther, of Frankfort, reports on some of the plans of the German Government for this year to extend the Empire's commerce and colonial cotton culture. He writes:

The new Federal budget of the German Empire for the fiscal year 1907 provides for the creation of additional professional consulates at Konia, Fez, Quito, Bagdad, and Manchuria. The sum hitherto allowed for commercial and technical experts as attachés to important German consulates is increased to double the amount, as the utility of such officials has been proven, thus making it expedient to enlarge the force.

In view of the increased cost of living, etc., the German ambassador at Washington is to receive an additional 20,000 marks (mark=23.8

cents); the consul-general at Cape Town, Africa, gets 6,000 marks more for the same reason. Very large sums, approximating several hundred thousand marks each, are to be spent for erecting buildings at Tokyo, Peking, and Tsinanfu for use of the German diplomatic or consular officers at said posts.

The sum of 100,000 marks is allowed to the fund for the promotion of German commerce and trade. This is to be used in furthering the efforts of the manufacturers to facilitate their cotton supply.

UNITED KINGDOM.

LONDON THE CENTER.

COMMERCIAL HEADQUARTERS FOR REACHING WALES AND SCOTLAND.

Judging from the letters of inquiry received by Consul D. W. Williams, of Cardiff, he concludes that the average American business man labors under a misapprehension regarding the methods of selling goods prevailing in Great Britain.

The system differs materially from that in vogue in America. Many antiquated features survive. It must be remembered, first, that the Kingdom was modeled on the Roman plan, with a capital and provinces, and practically all the lines of trade radiate from London. For centuries every commercial or trading concern has had its headquarters, offices, or stores at London, with branches at the most important centers in the provinces. The branches have multiplied with time, but the system has remained the same, with the result that London is the political and religious capital, commercial metropolis, banking center, the great store center and emporium, not only of the island, but also of the Empire, from and to which ebb and flow all the tides of business and human interest. This accounts for the marvellous growth of the city, which now contains one out of every seven of the inhabitants of the Kingdom.

London's business is done on such a large scale that practically every railway, telegraph, telephone system, postal service, including the efficient parcels-post system, act as feeders. For instance, there are only two kinds of trains, up and down; the first London-bound, and the others running from London into the provinces. The result is, in the provinces, that scores of towns less than 50 miles apart are nearer to London by rail than they are to one another. The overshadowing importance of London is such that even great cities like Liverpool, Bristol, and Southampton are simply ports of entry for London, just as Dover has been for so many centuries. Even in the case of great manufacturing concerns, which for various reasons have made many provincial towns their headquarters, practically all of them have their London offices and headquarters also, from which many of their customers are supplied.

PARCELS POST AND RETAILING.

From these particulars any one can understand that the wholesale trade of the Kingdom has its headquarters at London, and Americans wishing to enter the British markets should make use of the wonder-

ful trading facilities radiating from the capital. A London depot or agency is within three to four hours of all the principal cities and towns south of Scotland. Cardiff, which is 153 miles from London, is connected with the capital by means of four fast trains making the trip in three hours. The inland parcel-post system will carry 1 pound for 6 cents, and 11 pounds for 24 cents. The postal telegraph is so efficient that it requires only about an hour to receive an answer from any part of the island. It is really not worth while to open negotiations with provincial wholesale firms, for the great majority are either commission or brokerage concerns, or houses handling small stocks and supplying a limited district only.

The system of retailing differs materially from that prevailing in America. Only a few large retail stores catering to all sorts of customers are found in the island, but there are streets after streets of shops dealing in goods in one line only, handling only a limited stock, and buying largely from London houses, and even when owned independently, they, in a large number of cases, patronize the same wholesalers from year to year and change reluctantly. Their usual motto is to sell not what the customer wants but the goods in stock. It is not the rule to accept orders, and when an order is taken the cash must accompany it, and when the shopper fails to get the article ordered every effort will be made to substitute something just as good before reluctantly returning the money advanced. Even when a great company retails its own goods all over the island, as a large per cent of them do, instead of having one branch in a town, there will be from two to twenty small shops handling the same article, distributed in order to reach all parts of the town or city. The great majority of shoppers buy from bagmen only and not by means of mail orders.

THE SHOE TRADE.

The shoe trade follows the lines described. In Cardiff, which has a population of about 185,000, there are at least 275 shoe shops. Of this number 226 are single shops, and 49 are operated by 16 companies. The great shoe manufacturing towns are Leicester and Bristol, and three Leicester companies with 7, 6, and 5 shops respectively, and two Bristol companies, with 6 and 3 shops, respectively, are represented here. Many of the single shops also buy from these branches or direct from other Leicester or Bristol companies. It will be seen that there is very little freedom of choice left for the buyer. It should be noted also, that the shoppers are well organized, no better proof being needed than the dissolution of the soap trust on account of the boycott conducted by shoppers. Under the circumstances it is not at all strange that there are only two or three firms in Cardiff wholesaling miscellaneous brands of shoes, and one of these has declined to permit its address to be furnished to an American firm, a fact that speaks for itself.

American shoe dealers may as well understand first as last that it is a suicidal policy to send shoes to this country with soles that can not stand the climate. The American shoe is praised here for its smartness in shape and design, for the good quality of the uppers, for that easy feeling on the foot, but the soles, except of house shoes, usually fail to give satisfaction. The British manufacturer is profiting greatly at present by making a shoe after the American model, and mounting it on a good sole. It would be only common sense for Americans to send

competent men here to study the kind of sole needed, the kind that experience has proven satisfactory, and annex it to the American shoe. Then the American could easily capture the bulk of the trade of the country in all grades above $2.50. Americans would be foolish to try to compete in the cheap grades, for the markets are flooded.

IMPORTS OF BRISTOL.

AMOUNT TO FOUR TIMES THE VALUE OF EXPORTS.

Consul L. A. Lathrop writes that the total imports into Bristol, England, during 1905 aggregated $55,123,993, of which $8,166,231 were dutiable and $46,957,762 were free of duty.

The four largest items of import were wheat, barley, cheese, and sugar, their combined value being $22,944,560, or 40 per cent of the total. Other important articles were butter, petroleum, bacon, cotton seed, and crude zinc. The value of thirty-two of the most important articles is shown in the annexed statement:

Articles.	Value.	Articles.	Value.
Animals, living	$855,730	Provisions—Continued.	
Breadstuffs:		Beef, preserved	$239,300
Barley	5,896,592	Butter	2,031,413
Flour and meal	769,739	Cheese	4,004,054
Maize	847,604	Hams	197,580
Oats	945,186	Lard	797,702
Wheat	9,083,835	Mutton, fresh	152,205
Eggs	154,526	Rosin	265,769
Extracts	256,202	Seeds:	
Hides	645,955	Cotton	1,517,725
Leather, undressed	744,638	Flax	822,570
Machinery	260,971	Soap	121,497
Oilseed cake	375,770	Stones, slabs, etc	143,601
Paper, imprinted	390,410	Sugar	4,010,079
Paraffin wax	241,809	Turpentine	215,792
Petroleum	1,250,092	Wine and brandy	783,347
Provisions:		Wood, fir	1,727,924
Bacon	1,612,953	Zinc, crude	1,152,144

The value of the exports amounted to $13,055,341, the most important being: Cotton goods valued at $520,846; galvanized sheets, $3,073,667; tinned plates, etc., $3,461,235; manganese, $208,598; linseed oil, $237,651; sulphate of ammonia, $118,713, and paint, $118,743.

INDUSTRY IN IRELAND.

OPERATIONS OF FACTORIES, RAILROADS, AND FARMING.

Consul A. K. Moe supplies the following Irish commercial items from Dublin:

Of the total area of Ireland, about 1.5 per cent is under woods. The latest return shows 301,132 acres of forests, of which 44,227 are larch, 31,281 fir, 16,201 spruce, 3,230 pine, 22,536 oak, 7,521 ash, 9,533 beech, 2,756 elm, 2,613 sycamore, and 161,244 "mixed."

Regarding Irish transportation of all kinds, the rates are so excessively high that all healthful industry and commerce inland is practically destroyed. From year to year the railway freight business is losing ground; rates are going up, and the industries of the island are perishing because they can not conveniently get to market. The total length of railway lines in Ireland is 3,296 miles, the authorized capital of which amounts to $217,953,242.

The twenty-odd bacon factories in Ireland slaughter annually about 850,000 pigs and employ 1,600 hands. The largest of these factories are situated in Limerick and Tralee, and the larger part of the product is shipped to England.

Agricultural male laborers in Leinster receive in the summer from 42 cents to $1.09 a day; females, 36 to 48 cents; and boys, 20 to 36 cents. Day laborers get $3.40 to $6.08 a week; railway and street-car employees, $3.40 to $4.38 a week; and domestic servants, $50 to $100 a year. In some other parts of the island the wages are less. It is estimated that 25,000 laborers leave Ireland during the harvest season for England and Scotland, and that their savings in wages abroad amounts to $1,500,000.

Since 1851 there have emigrated 2,092,154 males and 1,936,435 females, a total of 4,028,589. The emigration in 1852 was the largest—190,322—and in 1905 it was the smallest—31,172.

FRANCE.

BUSINESS AT MARSEILLE.

MANUFACTURING INDUSTRIES—IMPORTS OF OILS, SHOES, ORGANS, AND PIANOS.

The following report from Special Agent Arthur B. Butman describes trade conditions at Marseille:

Marseille, with a population of 517,498 inhabitants, is the capital of the Department des Bouches du Rhône, the principal seaport and second city of France. All kinds of commodities and products are represented in the commerce of the city, with specialties as follows: Cereals, oil seed, coal, sugar, coffee, hides, wool, silk, and Algerian sheep. The total shipping entering and clearing this port annually is estimated at about 13,500,000 tons, nearly two-thirds of which is engaged in importation.

This great commerce is supplemented by important manufacturing interests in which the celebrated Marseille soap holds first place. The total amount of soap production in Marseille for the year 1905 was 132,519,346 kilos, of which 23,663,526 kilos were exported, 439,400 kilos having been credited to the United States. The average wage paid in the soap industry is 3 francs (58 cents) per day, which may be considered as the average wage for all manufacturing industries in Marseille. Dock hands receive a wage of 6 francs per day. The hours of labor are approximately ten to twelve. The adoption of a law regulating the day's labor to ten hours is now under consideration. The manufacture of candles and tiles, with the flour, semolina, and macaroni industries constitute other principal activities.

COTTON AND OTHER OILS.

Marseille is the commercial capital of the French colonies, and it is estimated that about 50 per cent of all the export and import business of France with her colonies is carried on through Marseille. Here, also, is the greatest cotton-oil port in the world. The importations of all oil-making materials at Marseille for the year 1905 were 358,645 tons. The French rates of duty on oils per 100 kilograms (220 pounds)

are as follows: Lard, $7.72; naphtha and schists, $3.47; heavy and petroleum residue, $2.31; cotton-seed, $1.15.

In the year ended June 30, 1906, the values of oils imported into France from the United States were: Mineral crude, $2,969,579; refined or manufactured, $4,048,411; cotton-seed, $2,412,164.

The following list of prices for cotton-seed oil, per 100 kilos refined c. f. i. landed weights, quoted November 9, 1906, furnished by an importer at Marseille, are interesting:

Description.	1906.	1905.
	Francs.	*Francs.*
American prime summer yellow	68	43
American off grade	65	41
American winter edible	70	47
American choice white edible	71	49
English sweet	66	42
English ordinary refined	64	40

The better grades of cotton-seed oil are used for mixing with olive oils. The rough or cheaper grades are used in soap manufacture. The greater bulk of cotton oils imported from America are of the better grade. I am informed that of the 175,695 barrels of this oil which entered Marseille during the year 1905, only 1,342 barrels were made up of soap oil. Among the largest oil importers at Marseille are: H. Beau & Cie., 26 rue Montgrand. Brudit, Limburger & Cie., 4 rue des Princes. Gabain Frères, 25 rue de l'Arsenal. Gravier & Cie., 78 rue St. Jacques. A. Stalla, 7 rue Seffren.

Marseille naturally affords a good market, owing to her soap and candle manufactories, for grease, tallow, and all soap stock, which are admitted duty free.

SHOE TRADE.

Regarding the local shoe trade of Marseille, I can only reiterate that the same conditions exist as reported in other cities throughout France. Shoes bearing the insignia of the United States, but doubtless of spurious manufacture, are frequently exhibited. The French manufacturer, an account of whose skillful imitation of the American product was given in previous reports, maintains a fine retail store in Marseille, and in fact in all principal French cities. I am bound to state that the shoes of this manufacture advertised as "Our Americans—with all the comfort, solidity, and elegance of the American shoes, and suited to the French climate," are cleverly fashioned and well finished. Mantields & Sons (English) have a retail shoe store in Marseille. It would seem that this city especially, owing both to the size and cosmopolitan element of its population, affords an unusual opening for an exclusively American shoe store.

TYPEWRITING MACHINES AND AUTOMOBILES.

American typewriters dominate the trade of the country in this line everywhere, and sales have constantly increased during the past five years. In 1905 these machines were imported to the value of $395,179, and in 1906 to $444,000.

Paris is the greatest automobile market in the world, and the claim that the French automobile leads all others in quality is a point of national pride. At present the American automobile manufacturer

can not hope to enter the French market with any large degree of success.

Although statistics for 1906 show the French importation of "Automobiles and parts of" from the United States to have been valued at $282,317, I judge that the item "parts of" must have entered most largely into this amount. I am informed by a gentleman of intimate acquaintance with one of America's leading automobile manufacturers that, first of all, the home demand is sufficiently large to tax present facilities for manufacture of high-grade machines in America. The opinion of many intimately connected with this trade seems to be that the time is not far distant when a cheaper automobile will be in demand in France. When this time arrives the American manufacturer should be able to gain stronger foothold here. The wage question alone renders competition extremely difficult, mechanics in France receiving $1.25 to $1.50 per day for the same work which in America would command no less than $3 per day.

ORGANS AND PIANOS.

The valuation of musical instruments—organs and pianofortes—exported from the United States to this country is so very small that the item may be considered too insignificant to mention. I venture to state, however, the following facts learned from conversation with the head of a musical house at Marseille. This house handles a piano and an organ of American manufacture, each of highest standard quality and reputation in the United States. This gentleman assured me that both instruments were admired and appreciated as regards quality and tone by the Marseille buyer, but prices are so far in advanee of those of French make that sales of the American instruments are difficult to negotiate. The tone of the American organ is acknowledged to be far superior to that of a French instrument, but for this locality an American product of medium price might be more successfully introduced.

NORWAY.

IMPORTS AND EXPORTS.

TRADE WITH THE UNITED STATES—HOW IT COULD BE INCREASED.

Consul-General Henry Bordewich, of Christiania, reports on the foreign trade of Norway, as follows:

The total trade for 1905 amounted to $134,911,200; imports, $80,292,800, and exports, $54,618,400. For the first eight months of 1906 the imports were $54,518,300 and exports $38,727,300. The principal imports were: Breadstuffs valued at $15,000,000; groceries, $6,000,000; dry goods and notions, $6,500,000; machinery and hardware, $8,000,000, and coal, $5,500,000. The imports from Great Britain amounted to $20,836,460 and the exports thereto $19,938,500. The imports from Germany were valued at $23,366,800, and the exports thither $7,197,500. Trade with the United States is gradually increasing, but as no manifests showing country of origin for goods imported are demanded, the official statistics do not show it; and many American goods reach Norway from Denmark, Germany, and England. The principal American articles finding a market in Norway are packing

house and farm products, machines and machinery, leather, petroleum, paints, and oils, tobacco, tools, boots and shoes, rubber goods, etc.

The exports to the United States during the fiscal year ended June 30, 1906, amounted to $1,840,014, and comprised the following principal articles: Wood pulp worth $1,077,339; hides, $353,864; wrapping paper, $41,710; cod-liver oil, $46,764; matches, $11,082, and oxalic acid, $38,214.

American trade with Norway could without doubt be increased if American exporters and manufacturers would give the matter closer attention. Traveling salesmen, when visiting other European countries, should also be sent to Norway, carrying with them, as far as practicable, lines of samples. Cotton goods valued at more than $3,000,000 are annually imported into Norway, mostly from England. American cotton mills should secure a part of this trade.

HOME INDUSTRIES CAREFULLY FOSTERED.

E. S. Cunningham, consul at Bergen, writes concerning general conditions of trade and industries in Norway, laying particular emphasis upon the part played by Bergen in the country's economic life. He says:

Immediately following the dissolution of the union that had existed between Norway and Sweden there sprang up an unusually strong sentiment in favor of home industries and the purchase of articles manufactured in Norway, which for the moment, in every line of articles which could be purchased of home-make, placed the foreign-made article at a disadvantage. There is always noticeable a strong desire among the people to patronize home industries, which is more marked than I have seen elsewhere, and during the recent times this patriotic sentiment is much stronger, though the foreign trade does not seem to diminish on this account. The trade of the entire Kingdom with foreign countries in 1905 amounted to $142,119,330, as against $129,968,000 in 1904, or an increase of almost 10 per cent. The exports amounted to $58,413,280 and imports $83,706,048, as against $51,673,080 and $78,295,665 in 1904, an increase in the value of exports of 10.9 per cent and 5.8 per cent in imports. While the imports exceed exports by more than 40 per cent, to make up this deficit and convert it into a handsome surplus Norway collects great sums in freights from foreigners, and the natural beauties of this country is a source of considerable income from tourists. Her commercial navy paid larger dividends than for some years previous, and the natural result was the placing of some orders about the close of the year for the building of several new steamers.

BERGEN'S IMPORTS AND EXPORTS.

The most important import is that of cereals, which were imported to the value of $5,534,845, consisting of rye, barley, wheat, and wheat flour. Cereals form more than a third of the imports. The grain is imported chiefly from the Black Sea, while the flour comes from the United States. Next in importance is groceries, imported to the value of $1,153,740, the principal items of which are coffee, sugar, and sirup. The sirup is of greatest importance to the American exporters, and the total import of that article was 738,442 pounds, valued at $127,755. Tobacco is imported from the United States, and

is largely used here. It is imported through Christiania firms, and resold here. Cotton goods form an item of importance and come from European countries.

A NOTABLE AMERICAN SUCCESS.

In regard to extending American trade in Norway the buyer must be brought to feel the need of the article to be sold, and personal solicitation is the most successful way of effecting sales. It often happens in employing agents that too little judgment is used and one is selected who has no special knowledge of the merits of the goods he offers for sale. In Bergen local agents are depended upon by the different buyers in some lines almost exclusively. In the matter of sirup large dealers always buy through the local agent. Norway does not afford a large market and not every line of goods will permit of the expense of sending a representative to introduce them. There is a constantly increasing number of German drummers making their regular trips to the cities and towns of Norway. The number of English salesmen is not so great, and the percentage of the imports from England has steadily fallen for several years. No doubt the aggressiveness of the Germans and their habit of adopting modern methods of obtaining the trade have had much to do with increasing their trade with this country.

A most striking instance of personal canvass has come to my notice. Two years ago an American manufacturer of machinery and tools sent a representative to this country—an entirely new field. This man spent three months in the country and sold over $250,000 worth of goods. A firm in Christiania was appointed agent and was supplied on consignment with parts of machinery and tools, such as might be required to make repairs. Almost every shipbuilding yard, foundry, and workshop, where tools could be introduced, was visited; and very few of them failed to install some article of American manufacture. In cases of reliable firms short credits were allowed and the order was always delivered before payment was exacted.

EQUALIZING FINANCIAL TERMS.

The system prevailing among most American exporters in demanding cash with the order doubtless reduces the amount of imports. For the benefit of American trade it is to be regretted that better terms are not offered the purchasers. It does not seem just that the purchaser should be deprived of the use of his money at least two months and the goods as well. If the American could see that it is to his interest to relax the rule, even to the extent of drawing against the bill of lading, it would do a great deal toward equalizing the terms.

In almost every article imported from other countries a credit of thirty to sixty days is given the purchaser, often with the privilege of extending payment against interest. So long as the credit system is practiced by the wholesaler in foreign countries the manufacturer who is willing to extend credit must have the preference, even though his prices are a little higher.

In my endeavors to promote and extend American trade it has often been a little difficult for me to understand why the American manufacturer did not extend as liberal terms to his customers living in Europe as he does to those living in the United States. If it is on account of the length of the time between the factory and the delivery

of the merchandise to the purchaser that credit can not be given them, why not concede something and allow just such time as will place their domestic and foreign customers on an equal footing? What the manufacturer wants is to sell his products and get paid for them. With the proper bureau of information he can accomplish both as satisfactorily here as at home. Ratings and business customs can be had of European firms which are just as reliable as those obtained in the United States.

INCREASING IMPORTS FROM THE UNITED STATES.

Consular Agent Claus Berg furnishes the following in regard to the possibility of increasing the imports from the United States into Norway via Trondhjem:

The wholesale dry goods dealers of this city did a better business in 1906 than in 1905. The importers claim that, as a rule, the best and most satisfactory lines of dry goods are obtained from the United States. They also say that the imports from the United States will become considerably greater when the large American export houses follow the example of the Germans and send their own salesmen here several times each year. These German agents sell a quantity of American-made goods carried by wholesale dealers in Berlin, London, and other places, but these wares become too expensive on account of the middlemen. No doubt sales will become more remunerative when American export houses send competent salesmen to this market. One journey hither would, of course, prove expensive to a single American house, but such a trip no doubt would bring satisfactory results. American cotton goods are recognized as the best, and boots and shoes from America are held in high favor.

ITALY.

BRIAR-WOOD PIPE MATERIAL.

INCREASING AMERICAN PURCHASES OF THE ITALIAN SUPPLY.

Complying with the request of a Kentucky firm as to the manner of getting out briar-wood blocks in Italy, Consul James A. Smith, of Leghorn, submits the following information:

The larger part of the Italian briar wood is found along the Mediterranean coast, extending from Savona on the north to Calabria on the south; the Ligurian Riviera, Tuscany, Umbria, the Roman provinces, the three provinces of Calabria, as well as the islands of Corsica and Sardinia furnishing an abundant supply. The work of excavating the root of the briar-wood tree is carried on from October until the end of May. A kind of grubbing spade with one sharp edge for cutting away the large billet or heart of the root (the valuable part) from the surrounding small roots is used in this work. This billet is known as the "ciocco." After being thoroughly cleaned and trimmed it is brought to the mill and by means of circular saws cut into small blocks corresponding roughly to the shape of a pipe bowl and stem. These blocks are of various sizes, depending upon the dimension and shape of the ciocco. Afterwards they are immersed in boiling water for a period of about twelve hours and then thoroughly dried.

This process completed, they are sorted (the imperfect pieces being thrown aside), placed in large jute bags, and are then ready for shipment. The waste pieces unsuitable for pipes are sold for firewood, being an excellent material for this purpose. Exportations of briar wood from this district to the United States have shown a decided increase during the past few years. In 1905 11,904 bales were shipped, with a value of over $100,000, while during the first nine months of 1906 nearly 16,000 bales, with a value of over $125,000, were exported from Leghorn.

AMERICAN SHELLS.

BRISK DEMAND FOR THESE GOODS—NO IMPORT DUTY.

"Mississippi shells" are imported into Italy in considerable numbers, according to a report made by Consul James E. Dunning, of Milan.

Milan, Naples, and Turin are the principal Italian centers of the pearl-button trade of the peninsula, and, though there is a considerable list of makers in small places in the country, it is in the larger enterprises of the great cities that the American exporters of shells will find an opportunity to capture new trade. The Italian button trade is good, and there is a considerable export business, which, however, does not extend in any important volume to the United States. The Milan consular district shipped only $1,700 worth of such goods to American ports during the year ending with June 30, 1906, but the proportions of the domestic market are sufficient to encourage the belief that American exporters of "shells," which in the raw state carry no import duty, can thus find a larger field for their output. Several of the larger Italian button factories are already under contract to handle, and are so handling, the shells shipped them from New York and other American ports, but the demand is brisk, and information. which reaches the consulate from a number of authentic sources indicates that there is plenty of opportunity for the enterprising exporter of this class of goods.

Additional information in detailed form will be furnished to meet the explicitly stated wants of inquiring exporters, who will receive prompt attention if they write to the Milan consulate. Interested correspondents would assist the consul if they inclosed return postage, in American stamps, with letters requiring an answer.

AUSTRIA-HUNGARY.

THE CHIEF PORT.

FOREIGN TRADE AT TRIESTE AND AMERICA'S SHARE.

Consul G. M. Hotschick reports on the foreign trade of Trieste as follows:

During 1905 the total trade amounted to $368,133,477, imports being $186,524,267 and exports $181,609,210, an increase of $782,729 in imports and $8,263,477 in exports over 1904.

The direct imports from the United States amounted to $12,809,169, an increase of $4,104,355 over 1904. While bacon, lard, and copper were imported in much larger quantities than in former years, these

articles do not solely account for the large increase, as nearly all kinds of products show substantial gains. This increase in imports is largely due to the regular and frequent steamship communications which now exist between Trieste and the United States.

The new Austrian duty on cotton-seed oil of $8.12 per 220.4 pounds, which went into effect March 1, 1906, has proved disastrous to the oil trade of Trieste and a serious loss to American exporters. Since the law went into effect the importation of cotton-seed oil has practically ceased. Efforts are being made to have this prohibitive duty lowered, but it is not probable that this will be done in the near future.

The principal items of import from the United States are shown in the annexed table, the quantities being given in pounds:

Articles.	Quantity.	Articles.	Quantity.
Allspice	1,055,342	Machines, etc	346,122
Breadstuffs:		Oil:	
Bran	1,161,163	Cotton-seed	50,053,900
Corn	19,870,721	Lubricating	1,422,187
Flour	2,202	Mineral	563,496
Wheat	1,524,040	Other	1,196,129
Cellulose and paper pulp	340,390	Phosphates	26,184,084
Coal	3,196,670	Provisions:	
Coffee	1,067,026	Bacon and lard	21,180,033
Copper	18,784,956	Oleomargarine	2,234,142
Cotton, raw	26,307,492	Tallow	3,128,989
Earthenware and minerals	1,570,777	Sulphate of copper and zinc	2,437,406
Glucose, etc	2,710,335	Sulphur	881,840
Grease	5,033,984	Talc	1,285,723
Lead	2,015,225	Tobacco, unmanufactured	423,504
Lumber	6,765,036		

PROSPERITY OF COUNTRY.

COMMERCE AND INDUSTRY REVIVAL—RECORD HARVESTS.

In reviewing the past year the newspapers of Austria and Hungary summed up the proofs of a decided improvement in the economical situation of the dual Monarchy, says the London Economist's correspondent at Vienna.

They are unanimous in saying that one must look back for a great many years before meeting such favorable circumstances and such a bright prospect as have distinguished the year 1906 in all branches of trade, industry, and commerce. The congratulations on this fact are all the louder because prosperity has set in after a long term of stagnation and apparently hopeless depression. Industrial enterprise of all kinds has been widely encouraged, and, at the same time, the business of banks and the traffic on railways and steamship lines have increased in an extraordinary manner. There have been good harvests in both Austria and Hungary, and treaties with foreign countries have secured the world's markets for Austria-Hungary's exports. The harvest alone brought Austria-Hungary 2,785.3 million crowns ($565,415,900), or 250 million crowns ($50,750,000) more than in 1905, when there was by no means a poor harvest.

The French Government has sent a special commissioner to Hungary to study the industrial, agricultural, and commercial conditions of the country, and to report upon them with a view to deciding in what manner French capital might be profitably invested in Hungary. The report will be laid before all the chambers of commerce in France.

Consul-General Richard Guenther, of Frankfort, corroborates the foregoing statement, writing that, according to the journal "Budapest Hirlap," the French Government sends its consul at Basle, M. de Coppet, to Hungary in order to study the commercial, agricultural, and manufacturing conditions of that country. The consul will spend two months in the chief commercial cities for the purpose of investigating the chances which Hungary may offer for the investment there of French capital.

SERVIA.

PROGRESS OF TRADE.

EXTENT OF FOREIGN COMMERCE—INDIRECT AMERICAN SHIPMENTS.

Consul M. K. Moorhead, of Belgrade, reports on the foreign trade of Servia, the figures being the latest from official sources, as follows:

The exports in 1904 amounted to $12,431,213, an increase of $437,733 over 1903. The principal articles were: Cereals valued at $2,960,956; live animals, $5,308,746; fresh meat, etc., $1,110,176; hides, $470,163; silkworms, $32,553; fresh fruit, etc., $2,175,364, and prunes, $1,254,909. The exports to the United States during the year amounted to $200, according to the Servian Government figures, but in reality they were valued at $71,278, as all shipments to the United States go by way of Fiume, and are credited as exports to Austria-Hungary.

The imports amounted to $12,185,282, an increase of $532,228 over 1903. The leading articles were: Cotton goods worth $2,044,660; iron and steel, $1,003,458; machinery, $414,620; raw hides, $726,362; oil of all kinds, $225,072; cutlery, notions, and jewelry, $510,578; paper, $242,633; woolen goods, $988,321; medicines, $279,810; twine, $196,168; sugar, $411,034, and rough lumber, $180,505. The imports and exports, by countries, for 1904, were as follows:

Country.	Imports.	Exports.	Country.	Imports.	Exports.
United States	[a]$149,055	$200	Russia	$214,296	$9,082
Austria-Hungary	7,316,742	11,070,245	Turkey	395,047	341,440
Belgium	112,179	46,021	France	194,917	4,404
Bulgaria	420,072	202,528	United Kingdom	1,000,424	500
Italy	195,408	27,595	Other countries	325,239	39,262
Germany	1,610,996	521,803			
Roumania	250,908	168,633	Total	12,185,282	12,431,213

[a] Includes North and South America.

The share of the United States in the total imports is less than 0.5 per cent. This does not represent the true value, as many merchants in Belgrade make purchases through German and Austrian brokers. There are on sale in the chief stores American hardware, ink, cutlery, novelties, and carbon paper, and in all these articles and many others their sales could be greatly increased if the proper effort was made.

The very considerable mining resources of Servia have hardly been touched, on account of the poor railway facilities. It is likely that within the next year many new mines will be exploited. At present the English are especially active in taking up concessions, which are

easily obtained, provided persons seeking them can prove that they possess sufficient capital to make a success of the undertaking. The value of minerals produced in 1904 was $517,303.

Besides agriculture and mining, the industry likely to increase most rapidly and to bring the best returns is that of pork packing. The slaughterhouse in Belgrade has a capacity of killing 500 pigs a day. Until the spring of 1906 all the pigs produced in Servia, except those for local consumption, were exported alive to Hungary. On July 7, 1906, the Austro-Hungarian Government prohibited the importation or transit shipment from Servia of pigs, alive or dead, as well as cattle, sheep, poultry, and fresh meats. The result has been that the pigs are being slaughtered in Belgrade in large numbers and are exported to France, Switzerland, and England. It is estimated that over 2,500,000 pounds of bacon were exported in 1906.

SEEK COUNTRY'S COMMERCE.

ENGLISH EFFORTS WILL START DEVELOPMENT IN KINGDOM.

The following report from Consul Moorhead indicates considerable commercial and industrial development in Servia during 1907:

In September, 1906, England renewed diplomatic relations with Servia by sending to Belgrade Mr. Whitehead as minister. This awakened a renewed interest in England toward Servia. The English papers of late have been filling a great deal of space with Servian news. A short time ago Sir Albert Rollit, vice president of the London Chamber of Commerce, visited Belgrade and a dinner was given in his honor by the local board of trade. The trend of the speeches at this was that Servia and England should be bound closer commercially.

Servia on account of the tariff war with Austria-Hungary is looking for new markets for her pigs, bacon, and live stock. Already she has found quite a favorable market in France and England. Negotiations are now under way for commercial treaties with France, England, and Rumania. Servia hopes by means of these treaties to build up a trade large enough to make up for the loss of the Austrian market.

The agent of an English firm is now in Belgrade seeking a contract for guns for the Servian Government. The contract amounts to about $1,000,000. It is also reported on good authority that an English banking house is to lend the Servian Government $22,165,000, over half of which is to be used for the construction of new railroads. If this loan should be granted and the railroads built, a very valuable mining country would be opened up—especially copper and coal. Many Englishmen are now in Belgrade seeking mining concessions.

GREECE.

AMERICAN WRINGERS MIGHT BE INTRODUCED.

Consul-General George Horton, of Athens, reports that in the entire Kingdom of Greece there is only one first-class steam laundry.

The building for this laundry cost $12,000 and the machinery, imported from Düsseldorf and Zurich, about $9,000. Besides this there are in Athens about fifteen or sixteen laundries in which the

work is done entirely by hand, without a single piece of machinery or mechanical aid of any kind. In these laundries the soiled linen is thrown into a box pierced with holes at the bottom and a thick cloth is spread over the top, which is covered with ashes. Then water is poured upon the ashes and the lye is allowed to ooze through into the linen for several hours. After this process is completed the linen is taken from the box and soaped and ironed by women and girls, all by hand. This is a description of the typical Athens laundry.

Families of the better class have a prejudice against these laundries, and washing is generally done at home. A large percentage of the houses are furnished with private laundries, consisting of a room with a cement floor with a water escape and a huge caldron built over a brick or stone furnace, besides which there is a terrace for drying the clothes. Some of the Athenian families give their soiled linen to peasants, who take it into the country and wash it in the clear springs or brooks. Greece is practically destitute of laundry mechanisms, and it is more than likely that the American wringer could be introduced if such a thing as a permanent exhibition of American goods existed in Athens, where, in company with other products of American ingenuity, it could be seen and explained.

TURKEY IN EUROPE.

SUGGESTED TRADE LINES FOR PUSHING AT CONSTANTINOPLE.

Consul-General Edward H. Ozmun, of Constantinople, gives the following pointers for the extension of American trade in Turkey:

In certain lines the pioneers have secured a firm hold of the market, among which may be mentioned American agricultural machinery and cotton goods. Others can only obtain a foothold by legitimate competition. There is an opening for all novelties and labor-saving devices. For instance, within the last year thousands of small American meat-chopping machines have been placed on the market and find a ready sale. A good and cheap petroleum lamp is competing favorably with the German lamps, as the coal gas here is poor and electricity is at present unknown. American rubbers and overshoes have a large sale, and are preferred to the heavier English and Russian articles.

There is a growing demand for American shoes, which are now run as a side line with a limited number of styles and shapes by several outfitters. There is as yet no shoe store operated on American lines. I believe the establishment of such a shoe store, with a full line of all shapes and sizes, together with rubbers, glosses, and creams, would meet with success. The present prices at which American footwear is sold must cover 50 per cent and in some cases even a higher percentage of profit.

Another line for which there is an opening and which is at present quite unknown in this market is silverware and plated goods. The motor-boat industry is in its infancy. The waters adjacent to Constantinople are particularly suitable to pleasure boating. The Bosphorus, along the shores of which the rich Turkish officials live, swarms with rowing boats and small steam launches.

BELGIUM.

BEST METHODS FOR SELLING GOODS.

Consul-General G. W. Roosevelt writes that the best manner of introducing American goods into Belgium, as well as to extend American trade, is to establish an agency at Brussels or Antwerp.

This could be accomplished by American merchants and manufacturers forming an association, each member contributing a certain sum per year toward defraying the expenses of renting a building for a suitable display of their goods and for the employment of a capable manager as well as a competent corps of clerks.

The next best plan would be for American manufacturers to send personal representatives who should sell goods direct from the factory to the dealer. The agent or representative should have a thorough knowledge of the requirements of the country and should speak its language fluently. In dealing with Belgium, American exporters and manufacturers should not lose sight of the important question of credits. European competitors give from 30 to 60 days, while the American houses have almost invariably demanded cash payment f. o. b. New York or other ports of departure. American houses would be just as safe as their European competitors in giving credit on the longer basis.

Mr. Roosevelt, in a report on the musical instrument trade in Belgium, says:

There are four conservatories of music in Belgium, located at Brussels, Ghent, Liege, and Antwerp, all of international renown. There are also two schools of music at Louvain and Bruges. These numerous excellent musical institutions indicate that the Belgians are a music-loving people, and the retail trade in musical instruments of all kinds is good. The sale of pianos is principally confined to uprights, there being also a fair demand for the "baby grand." The best manner for introducing American pianos and organs, piano players, and phonographs into Belgium would be through personal French-speaking representatives, who would sell goods direct from manufacturer to dealer. The duty on pianos and organs and all other musical instruments is 10 per cent ad valorem. [Dealers in various musical instruments at Brussels are named, and the addresses can be obtained from the Bureau of Manufactures.]

AFRICA.

ABYSSINIA.

RAILROAD AND CARAVAN ROUTE.

COTTON SHEETINGS THE LEADING IMPORT—TRANSPORTATION METHODS.

Mr. Frank R. Mowrer, the newly appointed Consul-General at Adis Ababa, the capital of Abyssinia, writes the following interesting letter from Diré Daoui, the present railway terminus:

Until twelve or fourteen years ago, the interior and foreign commerce of Ethiopia was carried on entirely by means of caravans. These routes were through hostile territory, and merchandise was often lost or occupied a year in transit. To-day, conditions have changed, to the extent that there is practical security in every direction.

From Jibuti, the principal seaport of French Somaliland, 186 miles to Diré Daoua, situated 132 miles in Abyssinia, there is a railway, over which there is maintained a regular freight and passenger service in twelve to thirteen hours. Diré Daoua, established in 1902, may be called a boom town, with a population of about 50 Europeans and 4,500 natives. It is the frontier or transit settlement, through which all imports and exports, via Jibuti, pass; the local commerce being insignificant. Here is located an Abyssinian custom-house; the duty, both on imports and exports, being on an average about 10 per cent ad valorem. Other custom-houses are at Harrar and Adis Ababa, but duty is paid only once. On November 15, the railway company was to impose a tax of 10 per cent ad valorem on all imports and exports it transports. This regulation has caused much dissatisfaction, as already the average freight rate is $23.94 per ton for the 186 miles from Jibuti to Diré Daoua. Recourse may be had to the camel caravans formerly employed.

From Diré Daoua, 34 miles, to Harrar, the chief commercial center of Abyssinia, there has been constructed a roadway, over which daily are dispatched camel and mule caravans laden with almost every kind of merchandise; of imports, principally American cotton sheeting, and of exports, hides and coffee.

The chief caravan route to Adis Ababa, the capital, some 300 miles distant, is direct from Diré Daoua, through the Danakil region, requiring two days of desert travel. For the transport of all cases, except small and light ones, camels are employed. About 625 pounds constitute a "charge" (usually load for two camels), at a cost of $20.16, and from thirty to forty-five days are required to make the journey.

The altitude of Diré Daoua is 3,900 feet, with a climate of perpetual summer; except during the rainy season—May to September—vegetation is dried up and there is practically no agriculture in the district, its topography being stone-covered mountains and sandy lowlands.

Considerable aloe and fiber plants grow wild in the vicinity. Areas have been denuded of the fiber plant, which is prepared, baled, and shipped to English and continental markets for the manufacture of rope. If this plant were extensively cultivated, a large industry could probably be built up.

SOUTH AFRICA.

THE CEMENT INDUSTRY.

THE SUB-CONTINENT OFFERS A GOOD MARKET.

Consul John H. Snodgrass, of Pretoria, in response to inquiries regarding the cement industry in South Africa writes:

Since the British occupation here, South Africa has presented one of the very best markets in the world for cement because of the new life infused in the country through the public works departments of the various colonies, including harbor extensions, railway building, sanitary projects, cold-storage concerns, and the like. Business blocks have been added to all the cities in which cement has entered to a large degree, an outside veneering always being added to the brick interior both in dwellings and office buildings. It is not surprising, therefore, that during the past few years the importations of the product have not fallen much below $1,000,000; in fact 1903, the banner year in all importations, records $2,500,000 worth of cement, while 1904 was but little behind that record. In that competition America cut but little figure, shipping to the Transvaal less than $400 worth in 1903 and about double that amount the following year, while Germany's contribution during the same period was $341,875 and $529,800, respectively, England following with $217,725 and $252,325 for those two years.

GREAT BRITAIN LEADS THE MARKET.

Before 1898 the United Kingdom furnished the bulk of the cement imported, but with the subsidizing of steamship lines and cheap rates to seaports in the Fatherland, Germany entered the South African field that year and captured 16 per cent of the total imports. Four years later, Belgium and Denmark entered the lists, when the position of the principal competitors stood as follows: United Kingdom, 43.4 per cent; Germany, 37.2; Belgium, 18, while the remaining 1.4 was divided between Denmark and other European countries, the United States not figuring at all. In 1903 other nations, viz, Austria, France, Italy, Holland, and Sweden, took part in the competition and captured part of the trade of Germany. Great Britain increased to 51.4 per cent and Germany dropped to 23 per cent. America, in the meantime, had sold in the neighborhood of $400 worth in that twelvemonth—a poor showing. From that time, however, the United Kingdom has been gradually increasing its hold, and advanced from 70 per cent in 1904 to approximately 90 per cent last year, of the total imports, while Germany decreased nearly to its standing of 1898.

The British affirm that their hold on the market is due to the firm and united action of their manufacturers, to the uniform quality of their product, and also, to some extent, to the customs preference, the last-named reason probably furnishing the greatest impetus to their

trade, though they claim that the subsidized steamship lines of the Germans make up for the preferential tariff.

The one factory in South Africa, situated just outside the limits of this city, was a failure up to a year ago, when Ezekiel Davidson, an American, was brought here and placed in charge. He immediately purchased an American kiln, which was substituted for an ancient one that had been in use, and introduced American ideas. This resulted in 1905 in a production of 75,000 barrels, which was marketed here at 25 shillings ($6.08) a barrel, and I am told that many times that amount could have been sold in Johannesburg alone. It is understood that the Pretoria factory's capacity will be increased threefold, and that other mills will be erected near Johannesburg and in the Orange River colony.

ADVICE TO AMERICANS.

My advice to Americans is to get into the market. If it is not possible to compete with the British preferential tariff, then erect factories here. That would bring a surer and safer reward than to hazard investments in gold and diamond claims.

I have been asked the question, "What suggestions do you offer to American firms desiring to sell in this country?"

I reply, first, take warning from the case of Germany and do not place an inferior product upon the market simply because it is cheap and sells well at sight, but which in the long run means ruin. Produce as superior an article as is said to be produced in England, and if it can be made at an equal cost at home I believe that even with a preferential tariff the American manufacture will, in the course of a comparatively short time, take precedence of the English goods. It will be futile to attempt to introduce American cement here without a strong effort by way of traveling salesmen who will be able to organize the territory through the agencies they shall establish. Should the ocean freights between New York and the coast towns of Africa be reduced and the lines be removed from the combine, then America will stand a splendid chance of furnishing the bulk of cement to South Africa.

CATTLE SPRAYING PUMPS.

AN IMPROVED OIL-WATER DEVICE WANTED.

Consul-General Julius G. Lay, of Cape Town, advises that recent articles in South African agricultural publications are drawing the attention of those interested in cattle raising to the advantages of spraying cattle which are infested with insects, especially ticks, concerning which he writes:

Although many solutions and emulsions have been tried here, as in the United States, for killing insects on cattle, it is now admitted that the most successful mixture is water and kerosene oil which is applied on the cattle by means of a spray pump. There is an increasing demand for spray pumps, especially among the smaller farmers, as it is a simpler and cheaper method of getting rid of insects on animals than dipping the cattle.

The principal makes of spray pumps in this market are of American manufacture. The chief competitor is a syphon pump invented by the late Hon. Arthur Douglass, a farmer of Cape Colony [a description of which, by C. P. Lounsbury, Cape Colonial Government

Entomologist and a native of Massachusetts, also a picture of the pump are forwarded by Mr. Lay, and will be furnished to those applying to the Bureau of Manufactures.]

The Douglass pump, with hose nozzle and measure glass, is retailed by merchants in Cape Colony at £4, equal to $19.47. To give American manufacturers an idea of the improvement needed on any sprayer used in South Africa it is thought best to quote from Mr. Lounsbury: "The ideal pump for cattle spraying, to my mind, would be an apparatus capable for supplying two lines of hose, one on each side of the cattle race, with an unvarying percentage of oil in the mixture, and which would not easily get out of order in ordinary usage. No pump yet made fulfills these seemingly simple requirements, but it is not too much to expect that material improvements on the best of the present pumps can and will be made, particularly if cattle spraying becomes common."

A sprayer which would operate on both sides of the cattle at the same time would, it is thought, have a great advantage in the market, as it is necessary to have two of the Douglass sprayers to accomplish this end, thereby making the expense double.

EGYPT.

GENERAL PROSPERITY.

GREAT IMPROVEMENT AMONG THE PEOPLE.

Sir William Garstin has made a journey up the Blue Nile and returned to Cairo, Egypt, where he has given out a statement of the great improvements that were visible in the condition of the people he visited last year as compared with their condition in 1899.

At present, he says, there is an almost continuous line of cultivation on both slopes of the river from Khartum to the point where the dense forests commence—a distance of several hundred miles. The villages are numerous and prosperous looking. The chief need of this part of the Soudan is railway communication with Khartum. Owing to the fall in the water levels navigation of the Blue Nile is impossible for about half the year, and the people in the south are unable to find a market for their agricultural produce, owing to the lack of any means of transport. The province of Gezira, between the Blue and White Niles, immediately south of Khartum, contains an immense area of magnificent land, he asserts, which with a system of artificial irrigation should become one of the first wheat-producing countries of the world. The only thing which militates against the prosperity of the region is its unhealthiness. Last year the proportion of sick at each of the southern stations was exceptionally high.

EGYPTIAN COMMERCIAL ACTIVITY.

Egypt's financial budget for 1907, as comprised in the British financial adviser's report, forecasts the total gross revenue at $71,733,000. The customs returns for 1906 showed a remarkable increase in exports. This large increase was due to the abundant cotton crop and high prices ruling. It was accompanied by a scarcely less remarkable increase in the imports, shared by nearly all classes, the most prominent advance being in metal and machinery. In 1906 the import duty was reduced

from 8 to 4 per cent ad valorem on certain articles of first necessity, namely, live and frozen meat, timber, petroleum, and fuel.

The Government will spend in 1907 $7,000,000 on irrigation methods, $2,920,000 on state railways, $1,558,000 on the development of Port Sudan, and $565,000 on the ports and lights department, mostly at Alexandria. Accommodations at the latter port are to be further enlarged, at a cost of $2,000,000, to cope with the growing tonnage of ships entering and leaving, which increased from 5,500,000 tons in 1903 to 8,000,000 tons in 1906.

CANARY ISLANDS.

IMPORTED MERCHANDISE SELLING AT VERY HIGH RATES.

Consul Solomon Berliner, of Teneriffe, responds as follows to inquiries from different parts of the United States as to the cost of living in the Canary Islands, and how they compare in this respect with the United States. The writers usually state that they have limited incomes:

I am informed that fifteen years ago no place in the world was cheaper to live in than the Canary Islands; but during the last five to six years the conditions have entirely changed, and there can be but few places where the necessaries of life are more costly. Rents are not only much higher than in the United States, but the houses are less commodious and almost entirely lacking in modern conveniences. Servants' wages vary from $4 to $8 per month, but one servant in the United States is capable of as much work as three here; one good servant in the United States at $20 per month is cheaper than three here.

The following are the current prices per pound for household articles at retail, expressed in American cents: Cut or lump sugar, 14; granulated sugar, 11; coffee, green, 26 to 42; tea, 55 to 100; common salt, 4; table salt, 6; rice, 5 to 10; flour, 5; lard, 17; ham, 26; cheese, 21 to 30; butter, canned or fresh, 43; meat, 15; meat, with bones clean, 25; choice meat, 35; lamb, 25; veal, 25; pork, 17; and bread, 4 cents per pound; eggs, 35 cents per dozen. By the quart oil is 33; petroleum, 9; cows' milk, 13; and goat milk, 11 cents. Charcoal is $1.40 per hundred pounds; coal, $11 per ton. The price of bread and meat is fixed by the city council. The foregoing prices are in American gold, the Spanish peseta being figured at 17½ cents.

During the last five to six years resident foreigners receiving their income or salary in gold have had the benefit of exchange, the premium on gold having ranged from 35 to 45 per cent. But since January, 1906, the premium on gold has steadily been on the decline, and from May onward the rate has been between 9 and 10 per cent. So far, however, the retailers have not reduced the prices of imported articles, and in addition to ordinary profits they still calculate the gold premium at 40 per cent, and arrange their prices accordingly. The prices of articles grown locally have advanced from 10 to 20 per cent. In my annual report I gave the list of articles upon which octroi is levied, and it will have been observed that this includes almost all household commodities—food, light, coal, etc. Those upon which no octroi tax is levied, viz, sugar, coffee, cocoa, tea, and spices, pay duty which varies from 100 to 300 per cent on original cost at port of shipment.

AUSTRALASIA.

COMMONWEALTH OF AUSTRALIA.

PIANO TRADE.

INSTRUMENTS PREFERRED—SUGGESTIONS TO MANUFACTURERS.

In the following report Special Agent Harry R. Burrill, writing from Melbourne, describes the styles and prices of pianos preferred by the people of Australia, and supplies information that will be valuable to manufacturers of those instruments engaged in the export trade. He writes:

The importation of pianos into Australia is steadily increasing, while their manufacture here has developed into a profitable industry in which there has been apparently a greater proportionate expansion than in the sale of the foreign-made instrument. While the population of the commonwealth is yet too small to warrant any great demand for what may be classified as a luxury, it is still of sufficient size to justify more careful attention on the part of American manufacturers. The manufacturers of Germany, recognizing this, have made and exported to this country pianos of medium quality and price, which, it would seem from their domination of the market, meet the requirements of the trade. Importers and dealers here assert that the manufacturers of the United States have attempted to make and send out to Australia a piano that could compete with the German instrument, but have failed signally as to quality. The price of the piano was satisfactory, but the workmanship and material were so inferior as to injure rather than benefit the trade. All experiments of American manufacturers, which have been made with a view to placing on the market a piano that would compare favorably with the popular German instrument in price and quality, according to the dealers here, have only resulted in discrediting pianos bearing an American name.

DEMAND FOR LOW GRADE INSTRUMENTS.

In high-grade pianos the factories of the United States turn out an article so superior that it has practically no rival in the Australian markets. English and German competitors have been as a rule unsuccessful in manufacturing for Australia an instrument that would meet the requirements of this trade. It must be admitted, however, that the business transacted in the higher-priced pianos is unimportant in comparison with that of the lower grade. It is suggested that if the American manufacturers could make a good piano, in all that that term implies, and lay it down at Australian ports at a price which would permit of its competition with its only trade rival a business of steadily increasing proportions could certainly be built up. This of course presupposes material and workmanship fully as good as or superior to that of the German makes, and it is quite as essential that the standard be maintained at all times if such goods are intro-

duced. The impression prevails here among the importers and dealers that it would be difficult for American factories to compete in the manufacture of these medium-priced instruments because of the cheap labor in Germany. This, however, is a question which can only be settled by a practical demonstration of the possibilities of an American factory. The freight rates from Germany and from the United States are practically the same, and there is no difference whatever in the customs duty, landing charges, wharf dues, and other expenses incidental to their importation.

STYLE AND FINISH PREFERRED.

With pianos, as with all other commodities imported into Australia, it is imperative that the foreign manufacturers should cater to the whims and the prejudices (if they may be so called) of the market. What may be popular at home is frequently so entirely at variance with the Australian ideas of a properly made article that American manufacturers should adopt the recommendations of their representatives here. When changes in style or make are suggested it is surely unimportant whether they may through American eyes be regarded as an improvement or distinctly the reverse, for if the Australian customers demand them it is unquestionably sound business judgment to give them what they require. It is certain that the Australians will not buy what we believe they should buy simply because the article gives satisfaction in the United States, or because it may possibly be of superior quality; and it is equally certain that they will buy just what they want, made up in just the way that they require, irrespective of where it may be manufactured.

The leading houses of Melbourne handle American pianos. As to the worth of these instruments there is but one opinion. The judgment of expert piano men and the Australian customer is not usually in accord, and the result is that instruments possibly inferior in quality command the market. In view of this it is suggested that American manufacturers so alter the make of their instruments as to conform to the requirements of the Australian trade without, however, sacrificing in the least strength in construction. According to the importers, these alterations would have to be more superficial than substantial, and would not in any degree depreciate the value of the piano.

SUGGESTIONS TO MANUFACTURERS.

A few practical suggestions made by the leading piano men of Melbourne may be of interest to manufacturers of the United States. In the first place, French polish is preferred to varnish, for the reason that the varnish used on American pianos is frequently injured in transit, and it is difficult to repair it here. Local workmen can not patch it up so the defect will not be noticeable. The French polish, which is used on pianos of German and English make, is known here, and repairs are easily made. This is regarded as an important point by the importers of this State, and one which should be placed squarely before the manufacturers of the United States.

The German manufacturers use what is known as the Italian walnut for their cases, and it is immensely popular here. While it is generally understood that this material can not be obtained in the United States, it is believed that wood which would carry a brighter and more attractive finish should be used in the construction of American pianos. Ebonized wood is practically unsalable and mahogany is not

popular. There can be no doubt, however, that if the American manufacturers will defer to the judgment of their representatives in Australia an inexpensive wood can be found at home which will appeal to the taste of this market.

Good cabinetwork is essential. The trade demands close joints, and it is advisable to use what may be called a continuous hinge across the top of the piano. Manufacturers of the United States make use of small, nickel hinges, but the Australians prefer the other style, and as the cost is no greater, why not give it to them? In this connection it may be said that the market of Victoria, and presumably that of the entire Commonwealth, requires brass instead of nickel fittings. Brass candlesticks, one on either side of the player, are to be found on 95 per cent of the pianos in Australia. These candlesticks are never sent out by the American manufacturers, but they are of course always supplied by the Australian dealers when required by their customers. The cost is unimportant and the German manufacturer, neglecting no detail however trifling, exports them with the piano.

GERMAN BUSINESS SAGACITY.

The German manufacturer places a wire gauze on the back of his piano and in so doing pleases his Australian customer. The manufacturers of the United States fail to do this simply because from their view-point it is unnecessary, and probably it is, but the fact remains that it is in utilizing these seemingly unimportant and certainly inexpensive fittings the Germans have popularized their instruments. The tone of the piano required is, according to the importers of this State, different from that so deservedly popular in the United States, but it would be useless to enter into a technical discussion in this report when it is so easy for our home manufacturers to obtain all these details from their representatives here. The cheapest of German pianos of any importance on the market sell at retail for approximately $175, while the most popular German makes average from $225 to $250. This may be termed the intermediate grade, which is now practically controlled by Germany, and it is the price at which an American piano should be introduced in order to successfully compete. It must not be inferred from these prices that there is only an occasional demand for more costly instruments. Pianos ranging from $375 to $500, are constantly inquired for, and in the higher priced instruments the manufacturers of the United States control the market.

Organs and pianolas manufactured in the United States are so absolutely in control of the market that it is unnecessary to enter into detail.

AMERICAN PIANOS ARE APPRECIATED, BUT—

with pianos in the Australian market it is largely a question of merit and price, with the necessity for catering to the requirements of the purchasing public. This Commonwealth is essentially a music-loving nation, and proportionately to its population there is probably no country on earth better provided with the means to gratify it. It must be remembered, however, that this musical instinct is quite as prevalent in the sparsely settled sections of the country as in the cities, and it is there that the lower-priced instrument of fairly good quality appeals.

The merit of the American pianos is universally appreciated in Australia, but their intrinsic value alone will not carry them to success

in a market that demands a finish and cabinet work quite different from that required at home. In the interests of the piano trade these minor details should be known to every American manufacturer exporting musical instruments to this Commonwealth, so that the necessary alterations may be made at once. The opinion is universal among the importers of Melbourne that the possibilities of the trade amply justify the changes suggested.

NEW ZEALAND.

REDUCED POSTAL RATES—INTERNATIONAL EXPOSITION.

Consul-General William A. Prickitt, of Auckland, furnishes the following topics of interest concerning the thriving islands of New Zealand:

Penny postage between New Zealand and the United States went into effect on November 1, 1906. With the reduction on letter postage from 2½ pence (5 cents) to 1 penny (2 cents) per half ounce from New Zealand to the United States New Zealand has also inaugurated cheaper international postage by permitting letters of increased weight to be sent at the minimum rate. Letters weighing 4 ounces or less may now be sent for 1 penny from one part of the colony to another.

Internal telegrams have now a uniform rate of one-half penny a word, with a minimum charge of 6 pence. The new rate went into effect November 1, in commemoration of the opening of the international exhibition at Christchurch.

The New Zealand International exhibition was opened on November 1 by Lord Plunket, the governor-general. Outside of New Zealand the mother country has the largest exhibit, covering 20,000 square feet of space. Next to her comes Canada, which has a magnificent court and a splendid display of her products, natural and manufactured. Then comes New South Wales, Victoria, South Australia, and the Fiji Islands.

The only foreign country represented is the outlying possession of the United States—Hawaii—whose exhibits are placed in the Fijian court. The Hawaiian exhibit is of very great interest to those interested in Maori lore, so closely connected seem the natives of Hawaii and those of New Zealand.

During the first week of the exposition the daily attendance ran as high as 40,000. It now ranges from 7,500 to 9,000.

INCREASED IMPORTS FROM SAN FRANCISCO.

At present the mail boats from San Francisco are bringing to Auckland large quantities of freight. The *Ventura*, which arrived November 19, had 1,100 tons, and the *Sierra*, scheduled to arrive December 3, had 1,600 tons. In these shipments potatoes and green and dried fruits were well represented.

On account of the potato blight, from which the potato crop in New Zealand has suffered, potatoes are being imported from the United States in considerable quantities. Potatoes are selling from $1.50 to $2 a bushel just now, but the new local product, which is commencing to appear, will no doubt shortly reduce the price. Apples are very scarce, and those of good appearance and quality are selling at retail at 12 cents a pound.

SOUTH AMERICA.

ARGENTINA.

COUNTRY'S FOREIGN COMMERCE.

IMPORTS GREATLY INCREASE—EXTENT OF COUNTRY'S BUSINESS.

Consul-General Alban G. Snyder, of Buenos Aires, has made a compilation, from official statistics just published, of the foreign commerce of Argentina for the first nine months of 1906 with a comparison for a like period of 1905.

Imports in 1906 up to October 1, aggregated $197,315,514 (in gold), or $41,664,054 more than in the 1905 period. The exports were $224,631,261, or $22,478,872 less than in the 1905 period. The importations of gold amounted to $17,985,128, or $8,419,625 less than the same nine months in 1905.

No figures have been given out regarding the gold exported, but the amount was only $50,849 for the first six months of 1906, compared to $602,380 for a like period of 1905. It is claimed, however, that the exports have exceeded the imports for the third quarter of 1906, because the reserve in the conversion office has been diminished by $13,000,000 since May last.

As to the merchandise exports, the third quarter of 1906 contributed only $59,865,151 of the amount, and if this figures out for the balance of the year, it may show no balance of trade either way. However, the exportation of wool, which had been in a backward state, is expected to show a change in favor of Argentina's total exports.

It is stated that the increase in imports was general in all branches and that this is indicative of business activity and the well-being of the great mass of the people owing to increased wages, but this is merely theoretical, for on the other hand it is also stated that probably the greater part of the increased imports comprised rolling stock, rails, etc., for railroads and street-car companies, and machinery, wire, etc., for electric enterprises, which statement bears some truth from the fact that most of these articles are free of duty and the excess of import duties from January, 1906, has not kept pace with the excess of imports.

The falling off in exports (gold valuations), as compared with 1905, was chiefly in the following classes: Cattle, of which $3,070,858 worth were exported during the first nine months of 1906; wool, $3,167,456; cotton, $1,332,252; jerked beef, $2,424,948; linseed, $930,605; wheat, $13,136,014; and flour, $563,528.

BUSINESS IN BUENOS AIRES.

In 1905 the people of Buenos Aires consumed 526,547 head of cattle, 772,673 sheep and lambs, 57,010 hogs, and 5,293 pigs. An enormous consumption of fish is recorded, this reaching 11,293,154 kilos (kilo=2¼ pounds), of which 6,151,902 kilos came from the surrounding waters of Argentina, while 5,142,252 kilos of fresh, dried, and canned fish were imported. The bakers used about 84,189 tons

of flour. The water works furnished 48,311,500 kiloliters (kiloliter= 1,000 liters or 264.18 gallons) of water or an average of 129 liters (liter=1.0567 quarts) per inhabitant per day.

The real-estate sales amounted to some $160,000,000, as compared to $94,000,000 and $45,000,000 for the previous years. The value of new constructions erected is calculated at $39,000,000. In my opinion, however, this can not be taken as any estimate of values, as real estate at present, in some cases, brings very fictitious prices and rents are very high. It remains to be seen if this condition can last.

The various street-car companies transported about 169,000,000 passengers, which is a considerable increase over previous years; while besides this, other modes of travel are represented by the existence of 5,186 carriages, 314 automobiles, 120 motor-cycles, 5,656 bicycles, 1,800 carts, and others.

The returns of 14 local banks, exclusive of agencies of foreign banks, represent a capital of $11,775,000 gold and $87,341,000 paper, with reserve funds of $3,705,000 gold and $5,543,000 paper. Discounts were $10,923,000 gold and $337,801,000 paper, and advances on current accounts $6,095,000 gold and $58,167,000 paper. Notwithstanding the above, there is, in my opinion, a splendid opening for an American bank.

The sum of $30,869,678 was used in floating mining enterprises during 1905, which, judging from talk on all sides, have not proved very successful, while $31,520,000 was used in the establishment of industrial enterprises.

CITY'S FINANCES—AMUSEMENTS—AMERICAN GOODS.

The city used for municipal expenses a little over $16,000,000 while the revenue from all sources was slightly in excess of $18,000,000. The city debt amonuted to about $54,000,000 at the end of the year, which involves the expenditure of over $6,000,000 in interests and refunding.

That there is a good opening in Buenos Aires for amusement companies of all classes there can be no doubt. Most of the companies that have been here lately as well as most of those that come are exceedingly poor or at most only fair, and yet the attendance is always very good. The theaters gave during 1905 about 4,900 performances and drew over 2,500,000 spectators.

Generally speaking the people in the United States have no idea of the size and importance of Buenos Aires, and I submit the foregoing with the hope that it may serve in a general way to impress them with the above facts and give some idea of the possible field here in certain lines. There is a good market here for many classes of American goods, but these will be reported upon in full in the near future.

BRAZIL.

FOREIGN COMMERCE.

FOURTEEN PER CENT INCREASE IN EXPORTS LAST YEAR.

Consul-General G. E. Anderson, of Rio Janeiro, furnishes the following regarding the commerce of Brazil:

The exports of Brazil for 1906 amounted to at least $255,000,000 gold. This total not only exceeded all exports of any previous year,

but showed an actual increase over the exports of 1905 by about 14 per cent. The excess of coffee shipments during the last three months of 1906 over the previous season is estimated at $17,355,000, and the total coffee shipments for the year will doubtless show nearly $125,000,000. There was an increase in the 1906 shipments of cotton, cocoa, caranauba wax, dry hides, and herva matte.

The port of Santos for the first nine months of 1906 showed exports of $66,132,695, as compared with $56,999,970 during the same period of 1905. The imports also increased from $20,324,715 to $25,369,015. The imports of Santos for the nine months of 1906 showed increases in the receipt of goods from Argentina, Germany, Great Britain, and the United States.

A survey has been authorized by the Brazilian Government of the rivers Purus, Acre, and Jurua, with the object of improving the navigation upon them. There seems to be no prospect of the great Amazonas territory reached by these rivers being opened up in any other way.

BUSINESS AT BAHIA.

INCREASED VOLUME OF IMPORTS AT A BRAZILIAN PORT.

Consul A. R. Morawetz, of Bahia, reports that the imports into that Brazilian port amounted to $11,773,244 in 1905, against $10,318,254 in 1904.

The principal articles imported from the leading countries were as follows: Argentina, flour and jerked beef; Austria, flour, furniture, paper, and textiles; Belgium, dress goods and firearms; France, butter, fancy goods, wine, and vegetables; Germany, beer, canned goods, hardware, dry goods, and steel; Great Britain and colonies, coal, codfish, iron, machinery, tea, wine, and liquors; Netherlands and colonies, cheese and tobacco; Italy, candles, groceries, hats, olive oil, wine, and paper; Portugal, olive oil, vegetables, and wine; Spain, groceries, wine, and liquors; United States, groceries, hardware, machinery, petroleum, and textiles, and Uruguay, jerked beef. The following statement shows the total imports, from various countries in 1905:

Country.	Value.	Country.	Value.
United States	$833,230	Netherlands	$89,250
Argentina	1,168,908	Italy	147,925
Austria	164,779	Portugal	581,628
Belgium	181,216	Spain	79,279
France	1,166,431	Uruguay	1,168,242
Germany	2,448,413	Other countries	58,530
United Kingdom	3,690,413		

The exports to the United States in 1905 amounted to $3,214,676, a decrease of $651,664 from those of 1904. The principal articles were: Cocoa, valued at $731,317; coffee, $866,593; hides, dry, $239,729; rubber (Manicoba), $747,034; rubber (Mangabeira), $194,952, and goatskins, $315,540. The exports to all countries amounted to $11,000,914 against $13,468,139 in 1904.

CHILE.

PRACTICE OF MEDICINE AND DENTISTRY.

Consul A. A. Winslow, of Valparaiso, states that American physicians who locate in Chile and attend strictly to business seem to prosper, both they and American dentists being regarded favorably. He furnishes a copy of the Chilean regulations governing the practice of medicine and surgery, a summary of which follows:

Foreign physicians and surgeons presenting degrees from universities recognized by Chile are considered equal to licentiates of the Faculty of Medicine and Pharmacy, and are subjected only to a practical examination in order to obtain the title of surgeon, which is equivalent to that of M. D. in the United States. This examination covers operative medicine, in-and-out clinic, gynecology, ophthalmology, obstetrics, anatomy, pathology, and general theory. [Details can be secured from the Bureau of Manufactures.] Foreign physicians and surgeons from universities not recognized by Chile must take the examinations prescribed for would-be licentiates of the Faculty of Medicine and Pharmacy.

Dentists and pharmacists with foreign diplomas who wish to practice their profession in Chile, will submit to the regulations, examinations, etc., prescribed by the Council of Public Instruction. It must be remembered that all examinations for physicians, dentists, and pharmacists are in Spanish.

OPENING FOR BUILDING MATERIAL.

Consul Winslow also reports that there will be a large demand for builders' hardware, cement, lumber, structural iron or steel, etc., in Valparaiso, Chile, for the next two or three years, and believes it will pay the American producer to study the field.

The United States ought to have a large amount of this business, and at good figures. German and English houses are after the business hard, but now is the time to get a foothold that will last. The visit of Secretary of State Elihu Root to this Republic has had a good effect, and has had a tendency to draw the Chileans nearer to us. The demand will be especially strong for structural steel and corrugated iron, nearly all of which has hitherto come from Germany and England. More corrugated iron will be used now than ever, for it is proposed to use it not only for roofs, but extensively for sheeting or siding for buildings.

COLOMBIA.

IMPORTS OF REPUBLIC.

UNITED STATES LOSES GROUND—ENGLAND GAINS.

Consul P. P. Demers figures that the Colombian imports through Barranquilla during the ten months ending October 31, 1906, had an invoice value of $5,521,124, of which Great Britain furnished the biggest share, with 39.79 per cent. The United States came second with 18.35

per cent and Germany third with 17.32 per cent, France following closely with 15.88 per cent.

From Great Britain the imports for the ten months aggregated $2,196,940; from the United States, $1,013,087; from Germany, $956,302; from France, $876,852; from Spain, $182,042, and from other countries, $295,900. The customs duties collected during the same period amounted to $3,566,000, making an average of 64 per cent ad valorem. The imports can not be compared with those for the corresponding ten months of the calendar year 1905, as invoices then were only footed up at the end of the year, but they would probably show a slight decrease. The amount of imports for the calendar year 1905 was $7,280,879, of which the United States supplied 38 per cent, Germany 26 per cent, and Great Britain 17 per cent.

One fact to be noted is that the United States has lost her position as first purveyor to Colombia, which she had held for many years, and that Great Britain, whose second position had been wrested from her by Germany in the years 1903, 1904, and 1905, has now taken the lead with over a million dollars to spare. There has been a general increase of English imported goods on the Colombian market since the beginning of 1906, but the main reason for her far advanced position lies in the fact that practically all the railroad material used in the construction of the new roads now being built throughout the country, mostly by English companies, came from Great Britain, and that American shipments of flour to Colombia have entirely ceased. The exports of flour from the United States to Colombia through Barranquilla had an average run of $500,000 a year.

SOUTH AMERICAN TRIPS.

GETTING PERSONALLY ACQUAINTED THE FIRST STEP TO SUCCESS.

Vice Consul-General F. L. Rockwood, of Bogotá, writes that it is time to urge American manufacturer's attention to the vital importance of personally visiting the commercial centers of South America.

Heads of American firms making such visits would please the importers, merchants, and bankers, and they would receive a welcome that could not be accorded to a traveling representative, and the effect afterwards would always be in their favor. "Yes, we know him personally," is far-reaching when one understands the customs of the Spanish-American race. Personally knowing and seeing these South American commercial centers, the heads of the firms would be enabled to act intelligently, with a clear understanding of the conditions and needs. It would also prevent confused and erroneous ideas, and furnish a knowledge that would enable them successfully to win the markets and hold them.

To Americans living in the South American republics the past ten years has shown that the American national events have been directly tending to make us more and better known in South America, strongly helped by the far-sighted heads of our country, who are opening the way and urging the attention of the American manufacturer to the great commercial battle ground of the Twentieth Century. Those who will visit and become known personally will benefit themselves and their country.

[There is a weekly passenger steamship service from New York to

San Juan, Porto Rico; Curaçao, Dutch West Indies; and La Guaira, Venezuela. A connecting line of steamers runs to Puerto Cabello and Maracaibo, Venezuela. Other lines and coastwise steamers enable Americans to reach most other points in northern South America.—B. M.]

The general trade customs in Colombia are gradually changing, caused by the administration of new financial and commercial laws, the effect of which is to place trade on a more solid basis. Competition among wholesale and retail merchants is bringing about new methods by which high-grade articles will not suffer by being mixed and sold with the poorest classes, and will force merchants to make a specialty of importing and selling in one line. This will result in favor of the foreign manufacturer bringing larger and more intelligent orders from the commission to direct trade, and establishing a better market for high-grade marks and makes, in which the excellence of the American manufacturer will be better known.

ECUADOR.

NEW RAILWAYS ARE OPENING THE COUNTRY TO COMMERCE.

Consul-General H. R. Dietrich, of Guayaquil, reports on a number of trade topics concerning Ecuador as follows:

The Guayaquil and Quito Railway Company is pushing the construction of their road from Riobamba to Ambato. It is reported that it will be open to public traffic between these two places by the middle of 1907. The emission of bonds guaranteed by the Government for building the road amounted to $10,455,997 gold up to August 10, 1905, of which the interest and sinking fund has been paid to January 1, 1906. A railroad to the eastern part of Ecuador is being surveyed by a commission of American engineers, employed by the Government. The railroad is to commence at Ambato, running thence to the Curaray River, traversing a district containing very rich and productive soil.

FIRE INSURANCE.

There are 10 fire insurance companies having offices in Guayaquil, of which 5 are English, 3 German, 1 Dutch, and 1 national, all doing quite a large business. Property to the amount of $2,916,899 has been insured, on which a premium of $199,145 was collected. American fire insurance companies would find a good field here. The rate for one-story buildings constructed of wood, covered or plastered on the sides by adobe and roofed with tiles or corrugated iron, is 3 per cent per annum; for two-story buildings of the same class, 4 per cent, and three-story buildings, 7 per cent.

CURRENCY OF REPUBLIC.

The currency of Ecuador is on a gold basis. There is a coined gold condor weighing 8.136 grams 900 fine, being of the same weight, fineness, and value as the British sovereign, and equivalent in United States currency to $4.86. The unit of value for all commercial transactions is the silver sucre of 100 cents, weighing 25 grams 900 fine and equivalent to 2 British shillings, or $0.4866 United States gold. A

complete list of Ecuadorian coins with their values in United States currency are:

Kinds of coin.	Value.	Kinds of coin.	Value.
Condor or ten sucre, gold	$4.8665	5 cents or medio, silver or nickel	$0.0243
Sucre, silver	.4866	2 cents, bronze	.0097
½ sucre, silver	.2433	1 cent, bronze	.0048
20 centavos or peseta, silver	.0973	½ centavo, bronze	.0024
10 cents or real, silver	.0486		

Paper money in notes of various denominations is issued by the Banco del Ecuador and Banco Commercial y Agricola, which note issue is protected by a gold reserve. The banking law permits the issuance of notes equal to twice the amount of the gold reserve.

PARAGUAY.

HIGHER PRICES CURRENT.

ACUTE ECONOMICAL SITUATION—BANKS RESTRICT CREDIT.

Consul John N. Ruffin, of Asuncion, contrasts the Paraguay of fiv years ago, which then was one of the cheapest countries in the world to live in, with the present rapid tendency of becoming one of the dearest.

Especially is this true in Asuncion, the capital, where it costs more to live than in any of the cities in Europe or America. Carriages which one could hire for 5 pesos an hour now cost 20 pesos, or equivalent to $2 American money. Bread which was 9 cents gold per kilo (2.20 pounds) is now 20 cents. Hard biscuits which were 40 to 50 cents gold per arroba (22 pounds) cost now $1.20 to $1.50. Shoes have risen from $2.50 and $3 to $6 and $6.50. Hotel living from $1 to $3 per day. Ordinary suits of clothes for middle-class people from $15 to $25, better class clothes from $26 to $40 and $50; house rent for dwellings of three and four rooms from $6 and $8 to $30 and $40 per month, these being for middle-class people. Moderate size shops and stores which formerly rented for $30 per month now rent for $90 to $120. Physicians' visits formerly costing 30 to 50 cents are now $1.50 to $2, and ordinary prescriptions which were formerly 30 and 40 cents are now $1. Cart hire has risen from 20 cents per trip to 40 cents, with the provision that the load does not pass 1,100 pounds; if it passes that amount an extra charge of one-tenth of a cent per kilo (2.20) is made. Hire of a laborer for a single trip in the city was formerly 10 cents, now is 20 to 30 cents; custom-house laborers, formerly paid $6 to $8, now receive $15 per month.

Paraguay this year has hardly produced anything. Corn, alfalfa, and beans are being imported from the Argentine Republic and distributed through the country, the Government having suspended duties on such articles of food intended for this purpose. The lack of sufficient supply of these articles of food is due to the devastation by locusts and to drought. In some portions of the country people are living largely on oranges, and of these there is a shortage of at least 20 per cent.

HIGH RATE OF EXCHANGE RETARDS COMMERCE.

The rate of exchange is now at the high quotation of 11.30, which calls for 11 pesos and 30 cents to make one gold Argentine dollar, or $0.965 American money, and judging from appearances it will go higher still. Although this high rate of exchange is a serious obstacle to international commerce, still it affords a powerful stimulant to building and land investments, as everywhere in the city new edifices are being built and paper money employed in these activities, notwithstanding the fact that Portland cement has risen considerably in price, costing $3.50 per barrel of 220 pounds.

The banks are not selling any drafts on the exterior of sums of importance; on the contrary, they are cutting down the credits of their oldest clients. This procedure is having a serious effect on the commercial movements here, as almost all the business lives on credit, even private purchasers at the shops getting a month or more credit. It is due to the call which will be made on the banks in the near future for 7,000,000 or 8,000,000 pesos, which the Paraguayan Government will have to pay as part of the last revolutionary debt, that will fall due in January. Banks are also making but few discounts and are seeking to collect their accounts. The scarcity of gold has been occasioned also by the refusal of the banks to issue drafts and on account of the low state of the river, which does not permit the exportation of lumber and other gold-producing products of the country. It is calculated that there are logs along the side of the railroad awaiting shipment to the value of $400,000 gold and logs worth $150,000 gold in the port.

The critical situation at Asuncion has also been aggravated by strikes and the emigration of a number of natives to the adjacent countries, so that there is a great scarcity of labor. The merchants claim that the richest people of the country do not put much money in circulation, because they have been accustomed to simple camp life, such as is found on cattle ranches, this industry constituting the principal wealth of the country.

AMERICAN ARRIVALS.

IMMIGRANTS FROM UNITED STATES—TIMBER EXPLOITATION.

Writing from Asuncion, November 30, 1906, Consul Ruffin reports that a company of immigrants had arrived from the United States for the purpose of colonizing a tract of land for which negotiations were pending with the Government of Paraguay. The consul says:

This company, I am informed, was incorporated about June, 1906, under the laws of California, as "The South American Lumber Company," having its office at 306 Carl street, San Francisco, Cal. Its officers are F. D. Prindle, president; J. K. Field, vice-president; John F. Lundberg, secretary; M. Duruz, treasurer.

From 20 to 25 men have arrived, but of this number there does not appear to be any with passports, and I think there are very few Americans among them, though they all say they came from America and are operating with American money. They intend to exploit the timber, and finally to make American roll-top desks, all kinds of furniture, launches, buggies, etc.

Although the men have gone up to the colony, which is situated at Rosario (Paraguay), Congress has not passed the law of concession, which, however, has been recommended by the President.

PERU.

REGULATIONS FOR PRACTICING MEDICINE.

Consul-General S. M. Taylor, of Callao, submits the following for the information of those physicians in the United States who desire to know on what terms they can be admitted to practice in Peru:

It is necessary to take an examination in Spanish before a board in the usual medical and surgical subjects. The fee for this examination is $500 in gold, being the same fee as paid by a medical student during his seven years' course of instruction in the national colleges. The license, when obtained, is good for practice in Ecuador, Bolivia, and Spain.

URUGUAY.

INCREASED IMPORTS—CONFIDENCE IN FUTURE.

Cousul J. W. O'Hara, of Montevideo, makes a report on the foreign commerce of Uruguay, of which a summary follows:

The total trade in 1905 amounted to $63,786,063, the imports being $31,883,087 and the exports $31,899,976, an increase of $9,945,037 in imports and a decrease of $8,241,578 in exports as compared with 1904. The principal articles of import were: Cotton cloth, valued at $3,309,000; coal, $1,413,027; lumber, $1,215,351; cigars and tobacco, $316,550; live animals, $1,946,455; wine, $1,281,085; potatoes, $499,939; sugar, $1,496,294; agricultural implements, etc., $264,989; steel beams and tools, $333,744; hosiery, $319,235; thread and cordage, $505,509; drugs, $257,916; kerosene, $604,728; wollen cassimere, $990,539, and wire, $1,027,081.

The exports were animal products worth $28,123,692; live animals, $608,517; provisions for ships, $237,625; agricultural products, $2,138,779, and other articles, $791,363.

It may be said that the great increase in imports is due to the general prosperous condition of the country and the confidence of the people in its future stability. The decrease in exports was chiefly in animal products, which showed a falling off of $8,009,450 from 1904.

WEST INDIES.

CUBA.

TRADE WITH UNITED KINGDOM.

BRITISH SALES TEN TIMES AMOUNT OF RETURN PURCHASES.

Consul Walter C. Hamm, at Hull, says it is claimed that the shipping trade between the United Kingdom and Cuba was fairly satisfactory in 1905.

According to a foreign office report issued recently, the British vessels which entered the port of Habana in 1905 numbered 305 of 370,461 tons, against 221 vessels of 263,044 tons in 1904. The British vessels which cleared from Habana numbered 299 of 360,392 tons, against 218 vessels of 266,788 tons in 1904. There is now a monthly service from Hull to Habana and Mexico, via Antwerp, Southampton, Corunna, and Vigo. At one time a fair amount of coal was exported to Cuba from the United Kingdom, but this is not so at the present time. In 1905 the imports of coal into Cuba amounted to 565,613 tons, of which only 9,848 tons were from the United Kingdom, the balance being from the United States, with the exception of 4 tons which were imported from Germany. The following tables give the value of the imports into Great Britain from Cuba and the exports to Cuba from Great Britain for the year 1905, and also the imports and exports for five years. The pound sterling is calculated at $5.

Imports from Cuba.

Asphalt	$19,640	All other articles	$15,105
Sugar and molasses	410,525		
Wood, mahogany	339,875	Total	814,895
Wood, unenumerated	29,750		

Exports to Cuba.

Apparel	$42,850	Machinery	$840,745
Beer and ale	254,610	Manure	6,490
Biscuits	50,425	Medicines	38,655
Chemicals	99,980	Metals	1,101,495
Chinaware	141,440	Milk (condensed)	24,635
Corn and rice	152,615	Oil (seed)	56,420
Cottons	3,623,230	Painters' colors, etc	142,520
Cutlery	27,360	Silk manufactures	25,240
Glass manufactures	53,840	Stationery (not paper)	16,800
Hardware	135,675	Woolens	564,670
Hats of all kinds	24,920	All other articles	622,500
Implements and tools	144,900		
Jute manufactures	58,403	Total	9,813,995
Linens	1,177,575		

Five years' British imports from and exports to Cuba.

	1901.	1902.	1903.	1904.	1905.
Imports from	$190,350	$217,285	$1,667,933	$898,465	$814,915
Exports to	6,089,725	5,885,315	7,405,920	9,144,340	9,813,995

It will be noticed that while the value of the imports from Cuba to Great Britain in 1905 were four times as great as in 1901 they are less than half what they were in 1903. The exports from Great Britain to Cuba, however, show a steady gain in value, although the increase in 1905 over 1904 was not so great as in previous years. These figures are worth studying.

IMPORTS.

RECEIPTS BY MONTHS AT THE VARIOUS PORTS.

Consul-General Frank Steinhart, of Habana, sends the following exhibit showing the value of merchandise imported through the custom-houses of the Republic of Cuba from July 1 to November 30, 1906:

Customs.	July.	August.	September.	October.	November.	Total.
Banes	$321,385	$187,981	$106,803	$34,727	(a)	$650,896
Baracoa	8,337	7,103	1,100	5,638	.....	22,178
Batabano	28,357	19,252	.....	.....	.....	47,609
Caibarien	125,626	153,808	104,687	117,403	(a)	501,524
Cardenas	164,469	90,367	85,707	119,483	(a)	460,026
Cienfuegos	506,345	599,448	428,246	350,216	(a)	1,884,256
Gibara	79,279	72,039	48,932	46,226	(a)	246,476
Guantanamo	98,712	121,930	(a)	(a)	(a)	215,642
Habana	5,746,922	5,497,676	4,249,755	4,765,904	$5,650,376	25,910,633
Manzanillo	87,630	96,331	104,571	132,184	(a)	420,666
Matanzas	198,397	229,533	124,041	192,168	280,947	1,025,086
Nipe	.....	18,822	106,578	155,639	(a)	281,039
Nueva Gerona	69	132	79	108	106	494
Nuevitas	241,742	150,052	51,299	101,944	76,909	621,946
Puerto Padre	12,571	30,040	40,444	53,080	55,540	191,675
Sagua	119,627	171,227	65,534	50,867	(a)	407,264
Santiago	710,694	747,911	(a)	(a)	(a)	1,458,605
Trinidad	40	76	25	4	60	205
Tunas	62,228	40,582	.....	.....	7,167	109,977
Total	8,507,480	8,234,810	5,517,801	6,125,550	6,071,105	34,456,196

a Data not yet received.

BANKING.

CURRENCY SYSTEM—GROWTH OF FINANCIAL INSTITUTIONS.

Consul Max J. Baehr, of Cienfuegos, states that Cuba has no currency of its own coinage.

The official money of the Republic is the United States currency, and all taxes and public debts are payable in the same, except fees of registers of property, which are collected in Spanish gold. In commercial circles (wholesale) Spanish gold is the basis of circulation, and in the retail trade and in the country Spanish silver is almost entirely used.

United States currency is always at a premium over Spanish gold, but this premium fluctuates according to the market demand for Spanish gold and silver. During the last year the American dollar was on an average equivalent to $1.09 Spanish gold, or $1.12 Spanish silver, the fluctuation being ¾ in gold and from 1½ to 2 in silver.

The legal monetary system of Cuba is patterned after that of Spain. The centen, or 25 peseta, is of gold, and has an average value of $4.90 American money. The silver coins are with their relative value in American money: The peso = $1, peseta = 20 cents, dos pesetas = 40 cents, real = 10 cents, and medio = 5 cents. Bronze and copper 1-centavo (cent) and 2-centavo pieces pass current at their face value in sums not exceeding 1 peseta. For the Government the fixed value of the centen is $4.78 American, and the luis is $3.83. By the latter is meant all the French coins, and fourth part of a Spanish onza.

The Royal Bank Bank of Canada has recently bought out the Banco del Comercio business, and is the Government's agent for the payment of the army of liberation. It has branches in Habana, Santiago, Camaguey, Manzanillo, and Cienfuegos. The Bank of Nova Scotia also has a Habana branch. The Spanish bank was incorporated on April 9, 1856, with a capital stock of $8,000,000, now divided into 80,000 shares of the par value of $100 each. It has a reserve fund of $456,000.

PROGRESS OF AMERICAN-CUBAN BANK.

The new building of the National Bank of Cuba in Habana, is a large and sightly structure.

The present banking facilities of Cuba are inadequate. Under the tenure of Spain no effort was made to afford the Cubans an opportunity to bank their savings, nor were the usual channels, found in other countries for the distribution of money, given attention. On July 1, 1898, the President of the United States appointed the North American Trust Company of New York, fiscal agent for Cuba, and it continued to act as such until July 18, 1901, when the assets and business were transferred to the National Bank of Cuba. This bank was organized with a paid-up capital of $1,000,000 United States currency. It purchased part of the assets of North American Trust Company, and liquidated the company's business in Cuba.

The bank has a savings department which serves to bring money into circulation, in addition to the bank's capital. Local loans are made and used for the development of business in each section. The surplus of one section is transmitted for loans in other sections where there is a demand for money. This prevents the money from being concentrated in Habana, and gives facilities for the development of the several sections of the island, instead of one particular section. The bank has correspondents all over the world, and does the principal part of the exchange business with China. In the early part of 1905, the capital of the bank was increased to $3,000,000 and later to $5,000,000. Aside from the bank building in Habana, it is proposed to erect buildings of uniform design in the principal cities of the island where the branches are established. The growth of the deposits of this bank is as follows: December 31, 1901, $4,179,995.04; December 31, 1902, $5,026,885.82; December 31, 1903, $6,110,866.43; December 31, 1904, $9,455,585.21; December 30, 1905, $11,264,329.72.

A new banking institution is the Bank of Habana. This will have a capital of $2,500,000, United States currency, which will represent 2,500 shares of $100 each, and this capital will be raised to $5,000,000, when the board of directors shall propose it.

MERCHANDISE IMPORTS AT CIENFUEGOS.

The Cuban imports at the port of Cienfuegos for the fiscal year 1905–6 consisted of the following principal articles, compiled from the

statistics furnished by Consul Baehr, the share of the leading countries being shown:

Articles.	United States.	England.	Germany.	Spain.
Agricultural implements	$35,308	$17,717	$229	.....
Boots and shoes	128,178	.....	231	$63,435
Breadstuffs:				
Corn	32,643	.....	.....	.....
Flour	309,890	.....	.....	.....
All other	10,249	1,632	7	2,804
Candles	16,027	.....	82	5,386
Carriages	15,647	1,160	902	.....
Cement	31,348	.....	639	442
Coal	162,604	7,937	.....	.....
Copper goods	18,226	9,602	3,035	1,378
Cotton goods:				
Tissues	91,747	234,240	4,031	84,304
All other	11,130	18,892	10,133	53,059
Glass and glassware	12,011	5,852	24,820	3,157
Iron and steel products	593,162	134,622	48,997	2,791
Oil, all kinds	74,615	7,443	100	451
Provisions	495,918	25,739	592	3,122
Vegetables	62,288	32,589	18,028	50,551
Wood, manufactures of:				
Furniture	69,280	175	3,625	560
All other	134,115	447	1,033	7,205

DUTCH WEST INDIES.

CURACAO.

STRAW-HAT MAKING HAS BECOME THE LEADING INDUSTRY.

Consul E. N. Cheney reports that the West Indian island of Curacao has been passing through a business depression from causes which are explained:

Not more than 1 inch a month of rain has fallen in four years, and fully half of that was inside of two months. The latter part of 1905 the ground became almost destitute of water. Numbers of cattle, sheep, goats, and donkeys died of starvation or thirst. Much hay was brought from New York, but its cost was too great to carry far into the interior. The owners of stock had no money; there was no farming, and gardening was reduced to the lowest point ever known, being confined only to vicinities of a few wells with windmills attached.

Continued business depression in Venezuela has also affected Curacao. There has been a further drop in price of real estate; upon more and more of it the bank has been obliged to foreclose, till the bank itself is land poor. Fortunately, during 1905 the straw-hat business has taken new life. The whole island—men, women, and children—seem to have gone to braiding hats. The Government opened a school of instruction, and many well-to-do ladies learned the art, that they might teach the poor. Attention is given to the finer grade of hats, and the product for 1905 was approximately valued at $125,000.

Imports continue to be about one-half from the United States and it will be hard to improve on that condition, as every great country in Europe has lines of steamers which touch here; besides, many classes of European goods are cheaper and credits are longer. What is greatly desired is a parcels-post, which would let a variety of small parcels of American products into the islands by mail.

An American company organized in 1905 to secure the guano deposits in the west of the islands, but found them very disappointing in amount. It has already suspended work. Another American com-

pany secured rights in certain phosphate lands in the east end, extensively worked a shaft for some months, which promised well, half built a good railroad to take the product to tide water, the rails being already on the ground, and then suddenly suspended operations.

In order to make the colony more self-supporting and less expensive to the Netherlands Government, a graduated income tax was imposed for the first time in 1905. All incomes of $2,500 or more are assessed.

BRITISH WEST INDIES.

JAMAICA.

UNITED STATES LOSING GROUND.

The United States made increased purchases of Jamaica's $8,731,854 exports for the latter's fiscal year 1906, buying 57.4 per cent, or 4 per cent more than in the previous year. On the other hand the sales of American goods in Jamaica decreased from 42.8 per cent of the whole amount of imports in the fiscal year 1905 to 39 per cent of the total imports of $9,343,193 in 1906. Great Britain secured 48.9 per cent of Jamaica's import trade in 1906, against 46.8 per cent in 1905. These figures are taken from statistics published by the Jamaica Gazette.

TURKS ISLAND.

LARGE SALT OUTPUT.

Consul J. A. Howells, of Turks Islands, reports that 1,564,300 bushels of salt were raked during the 1906 season in the West Indian Islands of Grand Turk, Salt Cay, and Cockburn Harbor (including Caicos Islands and East Harbor), a great improvement over the discouraging seasons of 1904 and 1905. The disastrous rain of 15 inches on November 4 and 6 at Cockburn Harbor, however, resulted in the loss of 15 to 20 per cent of the salt piled on the beach for shipment. Only a few cargoes have yet been shipped, and those have gone to Nova Scotia, except one or two to the United States.

NORTH AMERICA.

DOMINION OF CANADA.

SEEKING WEST INDIAN COMMERCE.

DOMINION BOARD OF TRADE DELEGATES WILL MAKE TOUR.

Consul W. W. Handley, of Trinidad, again points out that Canada is becoming a keen competitor of the United States in the West Indies, and cites the following:

An interesting movement, having for its object the closer trade relations between Canada and the British West Indies, is now under way in Halifax. In an address by the imperial commissioner of agriculture for the West Indies before the board of trade of Halifax, he earnestly suggested that a delegation of Canadian business men go to the West Indies to discuss trade matters with the business men and the chambers of commerce of points to be visited, with a view to closer trade relations. The Canadian West Indian Steamship Line has taken up the matter and proposes to carry delegates from boards of trade of Canada free of charge. The proposal is that a strong delegation from the boards of trade at Toronto, Montreal, St. John, and Halifax should be appointed, and that the different boards should exchange ideas on the subject. After the subjects are decided on they will be sent to the chambers of commerce at the different ports of call in advance, to give the chambers time to think them over.

It is the intention of these commercial missionaries to sail from Halifax February 15 and return March 23. The places to be visited will be Bermuda, St. Kitts, Antigua, St. Lucia, Dominica, Barbados, Trinidad, and Demerara. The scheme is one of the most important ever made for the extension of Canada's trade with the British West Indies, and if it is cordially taken up by the Canadian commercial organizations it will, it is believed, lead to great results.

WASTE OF BY-PRODUCTS.

STEADY LOSS OF VALUABLE RAW MATERIAL IN THE NORTHWEST.

In the new and rapidly developing country of British Columbia, Consul L. E. Dudley, of Vancouver, finds in commercial enterprises a degree of wastefulness that appalls one who has been accustomed to the economical methods of older communities. This leads him to write:

But little attempt is made to utilize by-products in any of the enterprises in this province. I will call attention to a few of the opportunities that exist for making fortunes from materials that are at best thrown away, more often disposed of at considerable cost of labor and expense. There are in the province from 1,200 to 1,500 coke ovens

and the number is constantly increasing, yet there is no attempt made to utilize the coal tar, which is available in large quantities. Persons familiar with the numerous valuable articles of commerce which coal tar yields can but wonder that some chemist with capital does not seize upon the opportunity here presented.

There are now many smelters at work night and day in several portions of British Columbia. Most of the ores smelted contain sulphur, which must be disposed of before the ores can be successfully treated. The ores are roasted, and the sulphur is vaporized and allowed to pollute the atmosphere, and often to kill the vegetation in the vicinity. Yet there is a great demand for sulphur and sulphuric acid.

The supply of timber here seems inexhaustible. So it seemed to the people of New England not so long ago, but they would give much to-day for the great white pine and spruce logs they rolled in heaps and burned in the process of clearing their lands. It would be well to conserve the great forests of British Columbia. As I understand, only the largest of the fir and cedar trees are taken and only the better portion of these. The tangled brush that covers the so-called "logged-off" lands presents the best possible opportunity for the spread of forest fires.

WASTE AT SAWMILLS AND FISHERIES.

But it is not in the forests alone but at the sawmills where we see much waste. At most mills a large fire burns from year's end to year's end consuming the waste. I do not know just how this can be avoided. Of course as much of this waste is sold to the people in the vicinity of the mills for firewood as they will buy, at very reasonable figures. Some time ago I visited, at Bellingham, Wash., a large plant which was distilling tar, pitch, and turpentine from the Douglas fir. It would seem to me that a similar plant near each of the sawmills might result in the utilization of some part of the waste that is now disposed of by fire.

In the salmon fishing the heads, tails, fins, and offal are mostly wasted. Some attempts have been made upon a small scale to utilize some of this by-product by saving the oil and turning the residue into fertilizer. I have seen no attempt to make fish glue nor other valuable products. To one who has been at Gloucester, Mass., and seen how every part of the codfish is utilized, the waste seen here is appalling.

It is not alone in the salmon fishing that waste occurs, but in the halibut, herring, and other fisheries as well. In taking halibut many dogfish, as well as other varieties, are caught. But there is no market for them, and overboard they go. I have heard it said that dogfish is one of the most valuable fertilizers known, my informant claiming that this fish contains 18 per cent ammonia.

I might greatly extend this report, as I find the by-products generally wasted in most of the industries established here.

TRADE AT THREE RIVERS.

PRODUCTS FROM UNITED STATES—IMPORTANCE OF FRENCH LANGUAGE.

From Three Rivers, province of Quebec, Canada, Consul James H. Worman reports:

There are several wholesale houses at Three Rivers, but as yet there is, in none of the trades they represent, much importing from the

United States. Dry goods and notions, ribbons, cheap silks, buttons, and cotton goods are the staple articles. In haberdashery also some foothold has been gained.

In boots and shoes and leather goods there is a rapidly growing demand for those of American manufacture, but there is need of more canvassing by the American jobber.

In hardware and household articles, as well as paints and roofings, in farm tools and machinery, the demand is growing if only judicious advertising and canvassing would obtain.

In crockery and glassware, especially pressed and cut glass, watches, clocks, and jewelry, brass goods, electrical fixtures, rubber goods, hats, caps, and clothing, the display in the shops evidences considerable gain; but in these also systematized efforts are wanting.

In drugs, candies, and stationery the American goods hold the favorite place.

FRENCH LANGUAGE PREVAILS—TRADE ITEMS.

The population of the city of Three Rivers exceeds 12,000, only 300 of whom are not of French descent. The population of the district will not fall short of 100,000, of which not over 1,000 are of English descent. The language of the town and district is French. Not only in the churches, schools, and shops, but also in the courts, and even at the post-office, the French language is the medium of communication. But few of the officials, provincial and Dominion, speak English. The only paper published in Three Rivers is printed in French. Americans desiring to open up business relations in the province of Quebec should circularize in French, and their representatives should be able to command the language.

The annual cut of logs in the St. Maurice region numbers 5,000,000, of which over 28,000,000 feet were exported to the United States.

The Dominion Coal Company, the largest coal producers in Canada, has leased a large tract of land, and will establish its most important depot on the St. Lawrence for storing coal. In the event of a strike 50,000 tons of coal will be in storage.

The product of the pulp and paper mills district exceeds 100,000 tons, most of which is shipped to the United States.

COMMERCE IN ONTARIO.

CLASSES OF FOREIGN GOODS IN DEMAND—GERMAN METHODS.

According to the annual report forwarded by Consul H. D. Van Sant, of Kingston, Ontario, under date of January 7, the declared exports from that district to the United States during the calendar year 1906 amounted to $363,139.

The leading articles of export were hides and skins valued at $103,193; feldspar, $50,290; and mica, $18,252. American agencies and salesrooms for sewing machines, carriages, hardware, hats, cotton fabrics, typewriters, and many other articles have been established, generally with profitable results, and all show a steady gain in sales. English and Canadian woolens, cigars, tobacco, and pipes have a greater sale than the American brands. The German brand of cutlery reaches this market in some instances by being first shipped to London and afterwards imported into Canada, marked as English goods, in order to escape the Canadian surtax against German direct

imports, as well as to receive the benefit of the English preferential duty. The cheese producers of the district received $656,922 for their product in 1906. The total output was 70,000 cheeses. and the highest price reached was 13½ cents per pound.

ST. PIERRE AND MIQUELON.

FISHING RESULTS A DISAPPOINTMENT—INHABITANTS EMIGRATING.

Consul Charles M. Freeman reports that the fishing season at the French Canadian islands of St. Pierre and Miquelon, which in July promised to exceed those of many years, has been a disappointment.

It is true that the total value of the fisheries for the year will be an advance on any of the past four, but the gain is so slight that it can not bring any great encouragement to those who have the welfare of the colony at heart. The people are much discouraged; so much money has been lost in the fisheries that no new enterprises are being undertaken or even contemplated. Where work was once abundant none is to be had; as a result the population is steadily decreasing. The best obtainable estimate places the present number of inhabitants at about 4,000, a loss in the last five years of 3,000. In the city of St. Pierre vacant houses are to be found on every street, business is at the lowest point known for years, and a spirit of unrest and uncertainty prevails.

The people complain not only of the bad fisheries, but of being overburdened with taxes. This year's colonial budget called for the receipt of $129,464, which gives, if the above estimate of the population is correct, a tax of $32.36 on each man, woman, and child in the colony. The budget called for was to be expended as follows: Governor and household, $6,268; bureau of statistics, $4,236; courts, $7,415; police and jail, $6,870; church, $2,635; customs, $5,549; treasury, $3,726; mail service, $33,620; light-houses, $5,814; schools, $5,273; hospital and public charities, $4,234; public works, $3,146; local governments, $12,712; debt, $27,507; miscellaneous expenses, including heating and lighting public buildings, printing, transportation of officials, etc., $11,862.

Lord Strathcona, High Commissioner of Canada at London, is informed by the Minister of the Interior at Ottawa that the emigration from the French islands of St. Pierre and Miquelon to Canada is attracting special attention in the Dominion just now. In Montreal alone there are some 600 of these islanders, and thousands are distributed throughout the province of Quebec.

MEXICO.

BUSINESS OF SONORA.

HERMOSILLO HAS CHINESE MERCHANTS AND THRIVING TRADE.

Consul Louis Hostetter writes as follows concerning the commercial and industrial development going on in the Mexican State of Sonora:

Hermosillo is 184 miles south of Nogales, Ariz., and is headquarters for the northern military division, comprising the States of Sonora,

Sinaloa, and Lower California. It is a city of 12,000 inhabitants and is supplied with all modern improvements, such as electric lights, telephones, waterworks, cement walls, macadamized roads, etc. A contract is about to be let for the erection of a public market house to cost $100,000. Officials also claim they are going to put in a good system of sewerage as soon as their market house is finished.

The trade of Hermosillo amounts to over $10,000,000 annually, derived not only from Sonora but also from the States of Sinaloa, Chihuahua, and Lower California. There are four banks in the city, consisting of the Banco de Sonora, with a paid-up capital of $1,500,000, branch banks of the Banco Minero of Chihuahua, the Banco Nacional of Mexico City, and the Banco Occidental of Mazatlan, all of which are doing a good business. There are 10 wholesale houses in the city, three of which sell only dry and fancy goods, and the others carry a line of general merchandise. They all have retail departments, but the main retail business is done by about 25 Chinese stores.

About 10 shoe factories, run and controlled entirely by Chinese, turn out about $100,000 worth of shoes. Factories for the manufacture of shirts, overalls, etc., with a single exception, are also controlled by Chinese, the annual output being about $450,000, although in some cases the merchants supply the factories with the goods to be made up and only pay for the work. A cotton mill at Las Cruces near here and controlled by Hermosillo capitalists uses about 1,000,000 pounds of cotton a year. There are two tanneries that sell about $275,000 of leather a year. A cracker factory does a business of $100,000 a year. A whisky distillery has been in operation for a short time and is doing well. The tanneries and the cracker and whisky enterprises are all operated by Americans. There are also a candle factory, a soap factory, and a canning factory.

TRADE WITH UNITED STATES.

There are splendid opportunities here for American merchants to do business, and if they will send representatives who not only speak the language, but understand the customs of the country, they will realize that a large business can be worked up. Houses sending samples to this part of the country should affix their prices thereto or send them under separate cover. I have had a complaint from the largest dry goods house in Hermosillo that after writing for samples to a manufacturing concern that sought their custom it was impossible to get prices after writing twice for the same. Local merchants as a rule say they would prefer to trade in the United States, but European houses are more careful in their packing and shipping. European houses send their salesmen here, sell on longer terms, and bill and pack their goods as the trade demands.

American goods as a rule are given the preference, and with very little exertion on the part of merchants in the United States there is no reason why they should not have the bulk of the trade. American goods, such as clothing, shoes, hats, hardware, notions, pianos, and farming and mining implements should have no European competition, as the United States should be able to secure the entire trade in these different articles. Ribbons, cheap jewelry, and notions of all kinds would especially find a good market.

California and especially Los Angeles is the summer resort of a great many people from this part of the State, as many as a thousand round-trip tickets being sold in a season, and in certain quarters of Los Angeles a person from the State of Sonora feels very much at home.

AGRICULTURAL PRODUCTS.

The new Cananea, Yaqui River and Pacific Railroad will open up a very rich portion of Sonora adapted to agriculture, and while mining has played an important part in the resources of the State farming will play as large a one in the near future. Lands have already risen in value in the district through which the road will pass from $1.50 to $10 and $15 gold per acre. The staples of the country are wheat, corn, garvanza or chick-peas, beans, cotton, and sugar cane, all of which yield abundant crops, and most cereals yield two crops yearly, in June and October.

Fruits of all kinds, as well as berries, give good returns, and vegetables of most any climate can be raised. Tomatoes are already an article of export, and large quantities are shipped yearly. Preparations are being made this year to ship thousands of boxes of tomatoes to the United States. In fact most every kind of fruit and vegetable ripens here from six weeks to two months earlier than in any part of the United States, giving the farmer the advantage of being able to dispose of his crops, and at good prices, before they are marketable in the United States. Oranges are shipped to Canada, and beans, garvanza, watermelons, and canteloupes to the United States. Garvanza is a chick-pea greatly in demand in southern Europe, the Phillipines, Cuba, and Spain.

The value in Mexican currency of the products, as far as obtainable, for the past year, was: Wheat, 378,488 kilos (kilo, 2¼ pound), at $2,088,448; corn, 283,830 hectols (hectoliter, 2.838 bushels), at $982,513; garvanza, 108,023 hectols, at $1,193,654; beans, 80,728 hectols, at $1,605,679; cotton, 414,400 kilos, at $111,588, and oranges, 303,682 boxes, at $107,025.

With the opening of the Yaqui River district there will be a demand for American farming implements, especially steam plows, thrashers, etc., as quite a number of large farm ranches will be laid out, and as the ground is nearly perfectly level they can be used to a great advantage. Windmills will also be used to a great extent, and it would be well for American manufacturers to advertise their goods in this section of the country and send catalogues.

MINING INDUSTRY.

The prospective building of several railroads to the different mining districts has given great impetus to the working of mining claims, as some very rich districts will be tapped by the roads that have heretofore been unable to get their ores to market without considerable cost and labor. The value of the output of the mines for the year past has been $9,278,438, Mexican, of which there was $2,766,933 gold; $5,013,042 silver; $1,425,958 copper, and $72,505 lead.

A customs smelter, erected at Guayamas this last year, will materially assist in opening a number of low-grade mines that have not been able to ship their ores, on account of excessive freight rates. The prevailing high prices of both copper and silver have induced

owners of mines to operate the same and ship their ores, instead of holding their mines for selling purposes only. The increase of this year's output will certainly add 25 per cent to the production of last year.

COMING LEGISLATION.

MEASURES FOR INDUSTRIAL AND AGRICULTURAL DEVELOPMENT.

Consul-General A. L. M. Gottschalk, writing from Mexico City, says that in the course of the year 1907 Mexico is to see much useful legislation of the practical sort, which will tend as well to protect certain classes of bona fide concessionaires as to further the industrial, agricultural, and general economic well being of the country itself. He adds:

Much of the older legislation is necessarily cumbersome, and much of it, though useful in its day, has become unsuited to the growing development of the country and its people, and it is gratifying to note that not only is an uninterrupted effort being made to modify, to correct, and to improve conditions by legislation of the right sort, but that each project for additional amended regulations is made the serious study of the best technical talent which the country affords.

IRRIGATION AND WATER POWER.

What the country most needs is a general system of irrigation, which would reclaim thousands of acres of arable land, and moreover would put into the hands of a mass of the less civilized rural population in the remoter districts small farms that, with only a little amount of application and diligence, so fertile is the country in itself, could be made profitable. There is no more difficult sort of legislation than that which deals with the distribution of water rights, and this is to form the subject of serious study in the near future. The topography of the Republic—a highly elevated table-land sloping gradually northward into the United States, but in almost all other directions furnishing more or less abrupt declivities to the sea, down which flow the mountain streams—in itself suggests untold possibilities in the way of water power. It has been calculated by Government engineers that in the State of Veracruz some one million five hundred thousand horse power was thus suffered to waste itself into the sea. There seems to be a gradually growing feeling among Mexican thinkers on economic subjects that this wonderful resource in the way of water power should be availed of by the Government, and some general legislation in this direction may soon be expected.

LAND TITLES.

It is a very much spread and utterly mistaken belief among our people in the United States that the Mexican Government has unlimited amounts of land to give away, and that these can be had for the asking; and this consulate-general is constantly replying to persons who write in this sense from the United States. The reason for this prevalent belief is, doubtless, that there exists no general survey of the lands of the entire Mexican Republic, and that many unscrupulous surveyors, availing themselves of the custom which gave to the sur-

veyor the right to one-third of the lands surveyed, have produced numberless maps of a purely fanciful order.

It is said that a new system of land laws will soon be promulgated tending to correct this evil, and that particular attention will be paid therein to favor those persons who have actually been in possession of land and have been working or improving it for some time past, as against those who possess documentary titles to large tracts which they do nothing with, or which they hold simply for purposes of speculation.

Untold good would be done to the small landed proprietor by legislation of this kind; it would tend to turn a good proportion of the Indian population into self-respecting farmers; and it would, moreover, make possible the realization of many sound and useful colonization schemes.

MINING LAWS—OIL, GAS, AND FUEL.

The contemplated mining legislation will show little radical change, but will have for its effect the codification of a number of decrees, circulars, and laws promulgated during the experience of fourteen years into convenient form. Petroleum and coal, it is said, will remain the property of landowners as a right inherent with their title, and will not, like the precious metals, be considered "products of the subsoil" denounceable by whoever discovers their existence.

Within a short time work will be begun by an American concern, which has just signed its first contract with the department of fomento (interior), upon a pipe line from the oil fields in the neighborhood of Tampico to the City of Mexico. It is expected that by this means there may soon be placed within the reach of the population of the capital clean oil and gas.

The problem of fuel is a serious one in the valley of Mexico, where for years a ruthlessly unscientific deforestation has been going on in order to keep the capital city supplied with charcoal fuel. Now that the nearest timber has all been cut away, the price of charcoal has naturally risen, and it is a matter of doubt how long the demand for fuel could continue to be supplied in this particular way.

HENEQUEN EXPORTS.

INCREASED PRODUCTION—AMERICA IS CHIEF PURCHASER.

Consul-General Gottschalk reports that interesting statistics of henequen exports of Mexico have recently been published. He writes:

They show a decided increase over the previous year's henequen trade; in fact, an increase over the exports of any year since 1902 save that of 1904. The exports in bales in 1902 amounted to 528,246; in 1903, to 611,939; in 1904, to 627,700; in 1905, to 617,766, and in 1906, to 626,785. The sisal or henequen trade of Mexico, which is confined to Yucatan, shows that the two great ports of the district, Progreso and Campeche, were unusually busy during 1906, exporting a total of 626,785 bales, of which 595,024 went to the United States. The only other country taking a considerable number was Canada, which purchased 22,196 bales, while Cuba took 5,777 and England 1,719 bales. Other European countries purchased small quantities.

Various American ports received henequen shipments from Yucatan as follows during the year: New Orleans, 186,747 bales; Boston,

144,916; New York, 119,688; Texas City, 63,620; Mobile, 59,235, and Galveston, 20,818 bales. Henequen prices in Yucatan have gone down considerably during the past three years, the prices paid in 1906 averaging 27.703 centavos (centavo ½ cent American) per kilo (2½ pounds), as contrasted with 30.419 centavos the year before and 33.27 centavos in 1904.

HIGH MERCHANDISE PRICES.

PEOPLE WOULD BUY MORE AT LOWER PRICES.

Consul V. L. Duhaime, of Saltillo, reports prevailing high prices on nearly all the necessaries of life in that part of Mexico.

Exorbitant prices on imported merchandise are the rule rather than the exception. Many families visit the United States to purchase their supplies direct. A large quantity of goods is brought in by parcels post. The building up of this parcels-post trade with the United States causes the local merchants some alarm, which must eventually result in their realization that to be successful in business they must be satisfied with reasonable profits based on larger sales.

The march of progress and prosperity in Mexico is indicative that the time is not far distant when the majority of the Mexican people will look upon as necessaries of life many commodities now regarded as luxuries. Furniture, household supplies, clothing, shoes, butter, cheese; smoked, prepared, salted, and canned meats; preserved, canned, and dried fruits; canned, pickled, and salted fish are used by Mexicans to a very limited extent, owing to prevailing high prices. The adoption of the modern commercial system of increasing trade by placing these commodities at prices within reach of the masses would benefit alike the producers, merchants, and consumers.

STOVES.

GRADES IN DEMAND.

Consul A. J. Lespinasse, of Tuxpan, reports that the cooking stoves in use in that part of Mexico are mostly of the cheaper grades, with occasional demand for a better quality with nickel fittings, but not to any great extent, as this increases the duties considerably. A list of firms who deal in stoves and names of farmers who might be induced to substitute stoves for the present cooking appliances at Tuxpan, Veracruz, San Luis Potosi, Pueblo, and Guadalajara are given by the consul, and are filed for public reference at the Bureau of Manufactures.

MISCELLANEOUS.

THE CONSULAR SERVICE.

FRANCE.

COUNTRY ADOPTS AMERICAN PLAN—COMMERCE THE CHIEF FEATURE.

Consul Thomas H. Norton, of Chemnitz, reports that the French Government has found it desirable to follow closely upon the example of the American practice, though going still further in the direction of rendering its consular system, and even the diplomatic service, an essential part of the department of commerce and industry.

Under date of November 3, 1906, a decree was issued at Paris which in abbreviated form is as follows:

Admission to the diplomatic and consular service is based upon nomination of the minister of foreign affairs after consultation with the minister of commerce and industry. The advice of the latter will be requested in connection with all propositions to create or discontinue consular posts. Commercial attachés will be assigned to the embassies and legations, where economic and commercial conditions render it desirable. Choice will be made from among those already in the diplomatic and consular service. Nominations are to be made by the minister of foreign affairs, after approval by the minister of commerce and industry. The latter will correspond directly with all consuls and commercial attachés, on questions concerning the economical situation, economic development, and customs legislation of the countries of their residence.

The consuls will forward directly to the same minister all documents of a commercial, fiscal, or maritime nature which may be of value to French navigation and commerce, and will communicate with both ministers reports in duplicate of their studies on commercial and economic questions. The minister of commerce and industry will communicate annually to the minister of foreign affairs his estimate of the value of the commercial studies of each consular officer, to be entered upon the efficiency record of the latter. One-half of the vacancies for appointment as "student vice-consul" will be open to graduates of the higher schools of commerce. On December 1 of each year the minister of commerce and industry will designate such graduates as he may select to be candidates. The two ministers above mentioned are charged with the execution of this decree.

Two features are especially noteworthy in this decree—the assignment of commercial attachés to the diplomatic posts and the selection of at least one-half of the young men entering the consular career from the graduates of commercial colleges.

A CONCRETE EXAMPLE.

Developing the fact that American consular officers are without funds for acquiring special facts which they are called upon every day to supply, Consul-General R. P. Skinner, of Marseille, furnishes the following concrete example:

I have already reported at some length in regard to the extraction of oil by chemical process, a subject in which the American cotton-oil trade ought to be vitally interested. On the strength of these reports an interested engineer now writes to me for "data as to the size of plants, plans of plants now in operation, percentage of loss by sol-

vents, and any other information." It is altogether probable that I could obtain all the data which my inquirer seeks, at a cost of some trouble, and with the expenditure also of some money. It ought to be obvious that a public officer can not consult chemists and engineers in regard to their professions without paying them their usual fees. Yet it is just this sort of close information which is wanted from day to day, and which no body of business men in the United States has ever seen fit to urge upon Congress to enable consular officers to supply.

GERMANY.

DIRECTORY OF AMERICAN FIRMS DESIRING FOREIGN BUSINESS.

Along the line of work undertaken by the Bureau of Manufactures in collating and indexing the names of the industrial and commercial concerns of the United States for reference in developing foreign trade openings, the following report from Consul H. W. Harris, of Mannheim, is of timely interest:

In a former report from this consulate the opinion was expressed that American business directories for use in foreign countries, and especially in consulates, should indicate which concerns have foreign agents, and the addresses of such agents. It was pointed out that many individuals and firms whose names appear in these directories are fully occupied with home trade, and do not care for foreign business, and that for a foreign customer to write such concern, either on his own account or at the suggestion of a consular officer, serves no purpose. While there has been improvement in this regard, part of the directories now giving the names and addresses of foreign agents, others furnish long lists of manufacturers and dealers without clue as to which of them have representatives abroad or are otherwise engaged in foreign trade. As most, if not all, such directories are compiled as a private enterprise, they are apt to be more or less incomplete, and a consular officer can not depend entirely upon any one directory, however good it may be.

INQUIRIES FROM MANUFACTURERS.

This consulate has frequent inquiries as to American manufacturers and their products, which it is not able to answer fully for the reason suggested. Three such cases occurring in one week recently will serve to illustrate; one was an inquiry as to an American chemical product made by several concerns in the United States, another was for a type of American machinery in common use there. In both these cases the names of manufacturers were easily found, but as to which of these concerns have agents abroad, or are engaged in, or seeking to engage in, foreign trade, there was no clue. In the third case, a company of men interested in the erection of a factory called at this consulate, the chief inquiry being as to whether certain well-known American machine concerns have European agents. Except as to one of the firms named, the directories did not furnish the information, making it necessary to pursue the inquiry by mail or telegraph.

A PARTIAL REMEDY.

While it is perhaps too much to hope that the consular service can be furnished a fairly complete American directory showing in conven-

ient form all American concerns engaged in or prepared to engage in foreign trade, the service could, as it would seem, be furnished a fairly complete list of such concerns as have agencies abroad, with the names and addresses of such agents. Thirty-two American consuls and consuls-general are located in Germany; all are citizens of the United States and all are anxious to promote its trade. Each has more or less knowledge of the business conditions of the locality where he lives. It is his chief concern to familiarize himself with these conditions, and he may know considerably more of them than does the manufacturer or banker in the town where he is located. Associated with these consular officers is a large number of consular agents, vice-consuls, and vice-consuls-general and clerks. Many of these are also American citizens, and are intelligent men, well known in the communities in which they live. And yet here in Germany it is the merest accident if a consular officer learns that an American concern has established an agency in Berlin or Hamburg, except as to the consular officer in the city in which the agency happens to be located. If information reaches him as to the refitting of a bank or office building with new desks or file cases, or of a probable immediate demand for some American product, or for prices, etc., the best he can do is to forward the information to the United States or, at considerable expense of time, ascertain what agents, if any, on the Continent are prepared to act in the given case.

MUTUAL COOPERATION.

It would seem that the cards of the hundred or more American concerns represented by agents in Germany, showing the names and addresses of the general agents, would make a valuable addition to the furnishing of a consulate. These could be furnished at trifling expense by such concerns. Through the habit of keeping consular offices so advised there would be likely to spring up an acquaintance between such agents and the consular service as would be helpful to both. The consular officer would have at his elbow a list of men, many of them experts from the United States, who would be of value to him. Much that is valuable in consular reports, if traced to its source, would doubtless be found to be due to suggestions of American agents. The general agent would, on the other hand, have a list of men of the nationality of his goods, if not his own, on whom he could freely call for such suggestions as might seem to him of value. A step would, perhaps, be taken toward a better working together of the forces which tend to build up foreign trade.

GREAT BRITAIN.

IMPROVED METHODS OF DISSEMINATING INFORMATION.

At a recent sitting of the British House of Commons, in reply to a question, a representative of the Government explained that beginning with 1907 the force engaged in editing consular reports would be largely increased and that every effort would be made to expedite their issue. It was further explained that consular officers had been instructed by the foreign office to report at once to the board of trade any matters of immediate commercial importance which may come to their knowledge, using the telegraph whenever deemed necessary.

Speaking at Walsall, on the evening of January 23, Mr. Lloyd-George, president of the board of trade in the British cabinet, accord-

ing to the London Financial Times, said one of the things which he thought the Government could do to improve British commerce was to strengthen the intelligence department of the board of trade, and thus discover the reason of the success or failure of other countries. With this object all British consuls sent abroad in the future would first have to pass through the intelligence department. There had also been complaints in the past that the information contained in consular reports was of no use by the time it was published. In the future, information would be promptly wired to chambers of commerce and others interested as soon as it was received.

STRAW GOODS INDUSTRY.

SWITZERLAND.

LOW COST OF PRODUCTION—EXTENSIVE LINE OF RAW MATERIALS.

Consular Agent Alfred C. Tevis writes that the canton of Aargau, of which Aarau is the capital, is the center of the straw and imitation straw goods industry of central Europe. Concerning the methods of manufacture there and the wide range of materials used from various parts of the world, Mr. Tevis furnishes the following details:

The people of the canton have for many generations been interested in this industry, chiefly because the labor of the peasants has been obtained very cheaply, and they could profitably produce the articles of real straw, on which the proportionate cost of the hand labor required (as compared with the cost of the raw material) forms an enormous percentage of the cost of the finished article. In writing of the present straw goods industry, so called, a large number of imitations of straw must be taken into consideration. In fact, not more than 5 per cent of all the output consists of real straw. In a single list of samples recently submitted to me of straw goods, which have been forwarded to Washington, are included the following materials, which represent articles shipped in the form of finished hats, braids, or bindings, in dozens of colors and finishes, and sold under the generic name of "straw goods." [The samples will be loaned to American manufacturers by the Bureau of Manufactures in the order applications are received.]

Sample No. 1 consists of wood chip and silk woven together; No. 2, wood chip and ramie; No. 3, "straw" braids of pure silk; No. 4, real horsehair made up with straw and cotton; No. 5, real silk and straw; No. 6, artificial (pyroxylin) and straw; No. 7, silk and ramie; No. 8, ramie; No. 9, cotton; No. 10, wood chip; No. 11, Jedda (or chow-chow); No. 12, woven fancy straw; Nos. 13 and 14, fancy articles made by peasants.

The straw used in the manufacture of real braids is usually rye straw and long of joint as possible. Each peasant, as a rule, grows his own straw, and as soon as his summer farming is over, and his crops gathered in, he and his entire family set to work to split and arrange the straw in the various widths required by the manufacturers, and then (a labor of infinite patience and requiring considerable skill) the lengths of straw are knotted together, and the resultant thread is made into large hanks, 18 inches long usually, and tied in bundles ready to be

sent to the manufacturers. Often the peasants braid the straw into such braids as that shown in sample 12 (sample is Jedda grass, but the straw is braided the same way), or indeed such is their skill that they frequently make such elaborate articles as those shown in samples 13 and 14.

HOW SWISS PEASANTS TOIL.

Americans often wonder how it is possible for the Swiss to produce articles requiring so much hand labor at such ridiculously low prices. To understand the question, one must to a certain extent study the sociological side of the peasant life. I am very much impressed with the industry of the people. Of course during the summer their work is largely in the fields, but the moment the crops are harvested and the wood cut and stored for the winter the entire peasant family engages itself in indoor work, such as weaving or knitting on the hand looms (always loaned to the peasant by the large manufacturers of knit and straw goods). I know personally of one family of peasants, and this is not in the least a unique case, but is typical of probably 75 per cent of these peasant families, who work during the six winter months of the year at three looms weaving narrow silk and cotton tapes. This family consists of four persons who are grown up, and seven children, whose labor is available out of school hours, and every winter for several years two of the looms have never stopped night or day, except for oiling or the introduction of new raw material. The third loom is run only during the daytime by the younger children when home from school. These peasants are industrious and sober people, and I am informed authoritatively are satisfied with a daily profit on the work of the entire eleven members of the family of from 96 cents to $1.34 per day on their entire output for six months of winter. This is characteristic of the labor of the Swiss, and especially of the "unskilled" labor, which produces the straw and imitation straw braids, enabling the Swiss manufacturers to ship to the United States, in spite of American duties, in competition with American workmen.

STRAW NOT MUCH USED.

After straw itself, silk and imitation silk materials are the products which should be considered of the greatest importance used in the straw goods industry. Indeed, except for the use of its name, straw plays an exceedingly small rôle in the industry as the following percentages of the manufactured products sold will show. Naturally this is only approximate, but generally speaking it is correct. On an output of 100 per cent in value it stands: Tussah silk, 30 per cent; real China and Japanese mulberry silk, 10 per cent; artificial horsehair (pyroxylin), 15 per cent; cotton, 10 per cent; straw, 5 per cent; ramie, 20 per cent, and miscellaneous fibers and horsehair, 10 per cent.

The real Chinese and Japanese silks made by the worms fed on mulberry and similar leaves are much too expensive to be used very largely in the industry, but a very large amount of Tussah silk obtained largely in Manchuria from worms fed on oak leaves is annually consumed in this district. Naturally it takes the dye very well and is fairly light and durable. It is woven into threads of various thickness and again these threads are made into narrow ribbon-like braids, which are dyed and finished as required.

USE OF "HORSEHAIR," WOOD AND FIBERS.

Imitation horsehair (or pyroxylin, as it is locally called) is a cellulose product, and is furnished to the manufacturers in the form of thick threads of every imaginable color, by a German manufacturing trust, with headquarters at Frankfort. This thread is finished and made into braids in the same way the real silk or real horsehair is prepared. Horsehair is now only used for white or black braids, as it does not take the dye as well as the imitation article and the cost is greater. It is said that the trust could sell the imitation product for one-half the price now obtained for it and make a good profit, but at present price it is only about 60 per cent of the cost of the real horsehair, and as they control practically the entire output they keep the price up.

Wood chip or wood shavings are used in this country to a certain extent, but it is in Japan that they play really an important part in imitation straw goods. Certain kinds of pine and oak are largely used, the shavings being made with or across the grain, according to the class of wood used. The finished product is light in weight and fairly durable, but it lacks the qualities of taking the dye satisfactorily and is generally used only in its natural straw color.

Cotton and hemp are used also in increasing quantities each year, but do not play an important rôle as yet in the Swiss industry. Certain other plant fibers are used, and even the barks of some trees are required for special purposes. A material known as "Bois de Bohème" is quite largely used in Italy for certain cheap straw hats.

Jedda fiber is a material which would be very largely used if the price of the raw material were not so high. It is part of a plant somewhat resembling an ordinary onion, and comes from the island of Réunion. It is a most durable, extremely light, straw-like material, and takes dye as perfectly as silk. The price varies very much from year to year, owing to the uncertainty as to the quantity which the natives will offer for sale. It has been sold as high as $4.40 per pound, and at present is as low as 57 cents per pound. Jedda fiber is generally known to the trade as "chowchow."

MANIPULATION OF RAMIE.

Ramie, of which the importance to the straw-goods industry is increasing immensely each year, is a flax-like fiber obtained from the leaves of the plant of that name, grown largely in India and Manchuria. The cost of the raw material alone prevents its general use by the trade. The large leaves of the plant, resembling somewhat tobacco leaves, are steeped in water, and then by hand the tough veins of the leaf are withdrawn and twisted together, and the whole is "carded," if one may use the term, and prepared somewhat as hemp is prepared, and is furnished to the straw manufacturer in balls some 9 inches in diameter, resembling very much raw cotton if it were drawn out into long strands or ropes. These soft ropes of ramie are passed through hot gelatin baths, and on leaving the bath each thread is passed between two rollers and subjected to immense pressure, the result being a ribbon of the thickness of straw and about an inch wide. This ribbon is passed through drying chambers, and is finally ready for dyeing or for being cut into the widths required for braiding, etc. Ramie takes dye more satisfactorily, and it is believed that it will gradually replace nearly all other similar materials used in the trade.

After the finished dyed threads or bands of straw, or any of the above products varying all the way from one sixty-fourth to 1½ inches in width (the latter being obtained by gluing or otherwise fastening together the narrow bands), have passed through the different processes, they may be passed through various machines to give them a certain surface finish, as, for example, a stippled effect or a lined surface, or rough or smooth or puckered finish, etc., as shown in samples.

I am informed that the greatest possible invention which could interest the straw manufacturers would be a machine for separating the ramie fiber from the leaf. Such a machine does not seem to exist. Is it beyond American ingenuity to produce such a machine? Furthermore, is there no part of the United States where the jedda or chow-chow can profitably be produced? Why can not the Philippines, which have in certain parts the same climate as the island of Réunion, produce the plant, the sale of which, as noted, is only limited by the supply?

PANAMA HAT MAKING.

PROFITABLE IN COLOMBIA—MACHINERY IS NEEDED.

Consul P. P. Demers states, in a letter from Barranquila, that one of the important industries of the Republic of Colombia is that of making palm hats, known as Panama hats, of which nearly $400,000 in value are exported annually.

This industry follows in importance those of coffee, gold, hides, cattle, tobacco, and rubber, in the order named, and is carried on in the departments of Cundinamarca, Tolima, Antioquia, and Santander, but mostly in the latter, where it is the breadwinner to more than one-half its population. There are no regular factories, but the hats are handmade by thousands of peasant women in almost as many households and sold or traded in the local stores in exchange for provisions or articles of clothing, the hat being in these regions a convenient medium of exchange; the housewife exchanging the product of her labor for so many pounds of flour, sugar, etc.

HOW PANAMA HATS ARE MADE.

Panama hats are made with the veins or fibers of a palm leaf, the tissues of which are scraped off or combed in much the same way as hemp. The palm (*Carludovica palmata*), called locally "jipijapa," is very small in appearance and grows in great quantities on the low and swampy lands of the upper Magdalena. It grows wild, but is also cultivated, although to a limited extent, in the largest hat districts, the palm producing in a little over a year. The preparation of the fiber after the tissues have been combed off, consists of boiling same in water containing salt and lemon juice for the effect of whitening and rounding its surface; this operation takes a few hours. The straw is then exposed to night air for three consecutive nights, after which it is ready for use. The material employed in the making of a hat is marketed at from 15 to 40 cents (equivalent thereof) per hat, according to the fineness and whiteness of the straw, the youngest leaves generally giving the best quality. It takes a woman four days to make an ordinary hat, eight days for a good one, and as much as fifteen days for the finest hat made in Colombia. The salary of the peasant woman employed in the making of a "jipijapa" hat is reckoned at 10 cents a day, including her food, which can be calculated at 10 cents additional.

The best hats exported from this country are those called "Suaza," made in the city of that name in the department of Cundinamarca. The next in order are the Antioqueños, made in the department of Antioquia. Then follow the ones made in the department of Santander, called, respectively, Zapatoca, Barichara, Bucaramanga, and Giron, from the various cities where made, and varying in quality and price in the order named. But the Zapatoca, although the most expensive from Santander, are supposed to be of less duration.

METHOD OF SHIPPING.

The best Suaza hat exported costs on the premises $5 and the cheapest from that place $1, the Antioqueños one degree cheaper, the cheapest of all being those from the department of Santander, which range from 50 cents to $2, according to the quality. Indeed, some Panama hats, made at the rate of one a day, sell for less than 50 cents, but these are made exclusively for home consumption and in no way exported.

Hats are generally exported by the local merchants, mostly through the agency of a commission house at the port of shipment. In some cases foreign houses buy direct, whereas a few individuals take their own merchandise to the foreign country where it is marketed by them personally. The hats are packed in boxes weighing 132 pounds and containing from 40 to 50 dozens each. The shipping costs per box are the following: Packing and boxing, $2; mule freight to river port, $1; river freight to port of shipment, $1, plus 1 per cent ad valorem; freight to New York, three-fourths of 1 per cent, or 20 cents per cubic foot, plus 5 per cent, should measurement be more than value; commission, etc., about $1 per box. Thus boxes containing 40 dozens of the best $5 Suaza hats and the cheapest kind exported (50 cents) will cost in New York the following:

Cost and charges.	Best Suaza.	Cheapest.
Purchase price	$2,400.00	$240.00
Packing and boxing	2.00	2.00
Mule freight to river	1.00	1.00
River freight to port of shipment	25.00	3.40
Commission, etc	1.00	.50
Freight to New York	18.00	1.30
Total cost of 40 dozen	2,447.00	248.20
Total cost per dozen in New York	61.17	6.20

Panama hats exported from Colombia to the United States may then vary in value from $6.20 to $61.17 per dozen. It is absolutely impossible, without examining the contents of each box, to put the right value on an average shipment, as it is the custom here to include many classes of hats in the same box. It can be rightly supposed, however, that the average hat exported to the United States from this country is at least of a fair quality.

GROWTH OF EXPORTS TO AMERICA.

The first Panama hat sent from this port to the United States was in 1899, and the trade to the present time has increased, as the following statistics of Panama hats exported to the United States from Barranquilla alone will show, being for fiscal years ended June 30: In 1899,

$536; in 1900, $518; in 1901, $14,425; in 1902, $84,342; in 1903, $112,649; in 1904, $111,103; in 1905, $79,448; and in 1906, $151,676. The figures given represent the declared value in the consular invoices, averaging approximately 75 cents per hat, a very low estimate. [A few samples of jipijapa palm showing different qualities, and also three hats just begun, from the Department of Santander, forwarded by the consul, will be loaned by the Bureau of Manufactures to interested parties.]

As above explained, Panama hats are made in a most primitive way. Accordingly, any machinery invented which could increase the output materially and reduce at the same time the number of employees would be a great benefit to the industry, which is very attractive since it needs but a small capital and promises good returns to anyone engaging in it systematically.

LABOR.

GREAT BRITAIN.

NEW WORKMEN'S COMPENSATION ACT.

Consul Albert Halstead, of Birmingham, submits the comprehensive summary of an English paper on the enlarged scope of the British workmen's compensation act, which becomes operative on July 1. The main features are as follows:

The new act extends compensation for injuries to almost the whole population, instead of the limited workers in dangerous occupations. It brings certain diseases within the category of "accidents." It takes away the present right of the employer to set up as a defense in cases where death or serious permanent disablement has resulted from the accident that the workman by his serious willful misconduct brought about the accident and the injury.

The amount of compensation varies according to the injury and the wages earned. If the injury causes death and the workman leaves persons wholly dependent on his earnings, the amount is a sum equal to the wages earned in the same employment during the three previous years, or $730, whichever is the greater. Where the accident causes total or partial disablement, a weekly payment not exceeding £1 ($4.86) is provided, but otherwise it may be any sum up to half the average weekly earnings of the workman.

The act may at first work some hardship. Many small shopkeepers or householders may feel it very inconvenient to make a weekly payment of $2.18 or $2.43 to some injured servant. There is no way of making it a term in the contract of employment that no compensation shall be payable or that the servant is to take all risks, and the alternative to direct liability is some form of insurance. Employers must, therefore, take steps to put "their houses in order" during the next few months.

The Birmingham Chamber of Commerce proposes to urge national insurance on the German plan as a substitute for the new law, and memorials looking thereto are to be addressed to the Government officials. In Germany the employer bears all the cost of accident insurance; the workmen bear two-thirds of the cost of sickness insurance, the remaining one-third falling on the employer, and the State subsidizes the old-age insurance funds contributed by the working classes.

CHILE.

SCARCITY OF WORKMEN—IMPORTATION OF COOLIES.

Consul Alfred A. Winslow, of Valparaiso, reports that the labor question in Chile is becoming a very serious matter and one that is keeping back the development of the country along all lines.

There is a great lack of laborers both in the city and on the farm, and because of this workmen demand very high wages and are so independent that in many cases they are of little service. There are no labor organizations, but workmen are so scarce that anyone who wishes to work can demand and obtain almost any price. Common laborers have been paid 8 and 10 pesos per day, which means from $2.40 to $3 United States gold. The usual wage is from 5 to 6 pesos ($1.50 to $1.80) per day, and skilled labor in proportion. Even at these prices it is impossible to get near enough men.

One firm in this city with very large interests in this country has arranged to bring over 2,000 coolies on contract, and a corporation is considering the matter of bringing in a like number of workmen from Argentina. It is conservatively estimated that 10,000 men could be given employment for the next two or three years in rebuilding the city of Valparaiso. Where these men are to come from is a mystery. The Government realizes this, and is considering the question of immigration. It is proposed to grant liberal land concessions to actual settlers. There is still much valuable land not occupied, and the agricultural products are needed for the country to supply food for workmen in the cities and in the mines at a reasonable price. As it is, living is very expensive here.

SEEKING EMIGRANTS FROM JAPAN.

Vice-Consul General E. G. Babbitt, of Yokohama, learns from a Japanese newspaper that a business man from Chile is now in Japan to exploit Chilean nitrates, promote commercial intercourse between the two countries, and as the representative of the Santiago Government to encourage Japanese emigration to Chile.

The Chilean Government offers considerable inducements to agricultural and fishing emigrants. Forty acres of rich land are given outright to each settler; 20 more to each son 18 years of age or more; a yoke of oxen, a set of farm implements, and $15 a month in cash for the first year. This would seem to be a sufficient inducement to the Japanese farmer to leave his little farm of something less than an acre, and go to Chile; while a practical monopoly of the entire fishing industry of a country having 3,000 miles of coast abounding in splendid fish, but practically without a fishing class, would seem to hold out a sufficient bait to a people versed in sea fishing and shellfish cultivation.

WALL PAPER.

UNITED KINGDOM.

SCOTCH DISLIKE TRUST METHODS—CHANCE FOR AMERICAN STYLES.

Consul Rufus Fleming, of Edinburgh, responds as follows to an American request for information as to the chance of selling American wall-paper hangings in Scotland:

For some years the wall-paper industry of the United Kingdom has been in the hands of a trust. This combination of manufacturers regulates production, fixes prices, and practically controls the trade, wholesale and retail, throughout the country. If a wholesale dealer wishes to make a purchase of foreign goods for a customer he must ask permission of the central authority of the trust. Now and then the request is granted grudgingly, but in nine cases out of ten it is refused. When granted, the permission covers a limited quantity of goods to be sold at prices which must not be lower than the prices of similar grades made by British firms. For an obvious reason the wholesale dealers can not afford to pursue an independent course in opposition to the combined manufacturers, and thus the trust has obtained, if not a complete monopoly of the trade, so strong a hold on the market that outside competition has not yet seriously affected it.

Prominent retail dealers—paper-hanging firms—in Edinburgh and elsewhere have at various times purchased, through their own agents, American and French wall papers, despite the threats of the trust to stop the home supply if they bought too freely abroad; but the differences in size, designs, and coloring of papers and the difficulties of doing business with firms at a distance have restricted this trade. Not a few of the leading retail houses in every part of the country are bitterly hostile to the trust, as evidenced by a project now under consideration among English and Scottish firms to organize a company and establish works for the manufacture of certain classes of paper hangings. An old and important retail firm in East Scotland is taking an active part in this movement.

TRADE METHODS, PRICES, AND CREDITS.

If a retail dealer wishes to "stock up," and prefers the goods of a certain manufacturer, he can order direct or from a wholesale house. In either case the discount is the same, if goods are paid for within thirty days. If he desires to make a selection from a wide variety of designs, etc., he obtains a book of samples from a wholesale dealer. In this book are hundreds of patterns, the net price (to the public) being printed on the reverse side of each. The names of the manufacturers do not appear. The average paper hanger carries a very small stock, consisting of staple qualities and designs, and when a customer requires anything out of the ordinary a sample is chosen and an order sent to any wholesale house. There is no delay. The commercial machinery of the trust has been brought to an admirable state of efficiency. If the wholesale dealer does not have in stock what is wanted he gets it at once from the nearest place of supply. By prompt and uniform dealing and by furnishing an abundance of suitable designs the trust has done something to conciliate the retail men, whose profits were reduced at the outset by a reduction of the trade discount.

But undoubtedly the dealers, or a majority of them, would be greatly pleased to see a keen competition, domestic or foreign, in the wall-paper industry. Their complaint against the existing order of things is not confined to the cut made by the trust in their margin of profit. They say that the grades of paper hangings have deteriorated, that they are not now getting as good value for their money as they obtained a few years ago, and that their protest against deliveries of inferior goods are unavailing. Wholesale dealers also say that wall paper has not been kept up to the old standard and that if they make any objection to the goods received they are curtly told that anything different will not be supplied.

The trust has not increased the prices of goods to the public. Each pattern, as above stated, is marked with the price. Paper-hanging firms can charge customers neither more nor less. I send herewith samples of a number of grades of wall paper, popular in this city, ranging in price from 18 cents to $1.21 per piece (12 yards long and 21 inches wide) [on exhibition at Bureau of Manufactures, which will also upon request supply samples therefrom to wall-paper concerns looking to an export trade]. The retail dealer gets an average discount of about 33⅓ per cent at one month. Before the formation of the trust the usual discount was considerably larger. An extra discount is given to wholesale firms. Manufacturers give a credit of 30 clear days; wholesale dealers from one month to six months, according to circumstances.

CHANCE FOR AMERICAN PAPER-HANGINGS.

If our manufacturers are prepared to place on the market, largely and continuously, and at competitive prices, patterns of paper suited to British taste, they can get trade here. Retail dealers would buy suitable American goods if kept largely in stock by wholesale houses in London or any other convenient market. The proprietor of the principal paper-hanging house in Edinburgh informs me that he has not been entirely satisfied with either American or French hangings, his objections being (1) that the pieces are not of the English length and width and (2) that, while the designs in general might be acceptable, the coloring is, as a rule, somewhat too pronounced and follows too conspicuously the "impressionist" style to suit this market, which requires finished treatment and rather dainty coloring of papers. His opinion is that if American manufacturers will produce the patterns and size of goods preferred in this country, establish agencies with ample stocks, and send out salesmen, "they will do a large business."

[Two leading wholesale wall-paper firms and an important paper-hanging firm, all of Edinburgh, are named by Mr. Fleming, the addresses being obtainable from the Bureau of Manufactures.]

PROFITS OF THE TRUST.

The report of the Wall Paper Manufacturers, Ltd., for the year ended August 31, published by the London Financial Times, shows a net profit of $681,300, against $972,800 the year previous. It should be noted, however, that the expenses this time include a special charge of $243,000 in connection with the loss on closed branches and the liquidation of one company. The ordinary capital receives the 8 per cent paid regularly since the formation of the combine, but there is

no appropriation to reserve on this occasion, whereas the sum of $243,000 was so transferred twelve months ago. The total of the reserve fund, therefore, remains at $875,000. The surplus of $710,750 carried forward is about $14,600 less than the balance brought into the accounts.

GERMAN COMPETITION IN GREAT BRITAIN.

Consul D. W. Williams, of Cardiff, writes that the wall-paper trust is said to control all but six of the British mills.

It controls the retail trade by means of four to eight year contracts, which permit retailers to handle not more than 10 per cent of wall paper not controlled by the trust. It is alleged that the trust favors the largest buyers in regard to prices and discounts. It is claimed, also, that it is selling some lines at an actual loss, in order to drive out German competition.

For instance, an article that formerly sold for 6 cents was cut about eight years ago by German firms to 3 cents, and now the combine, that it may dispose of that competition, is placing the same paper at 2½ cents. This indicates the strenuosity of the campaign. It is understood that retailers must secure consent of trust when stocking their 10 per cent of other goods. It is claimed by the partisans of the trust that it was formed to fight German competition, which would have closed down every British mill if it had been successful. The dissatisfaction among retailers is general, and it extends to the patrons to a certain extent. Even the staid Country Gentleman states editorially that "less attention has been paid to a minor but still a very real evil of trade combines, namely, the cutting down of the choice of patterns and designs."

The German wall-paper men have been the principal competitors, but American wall paper was formerly stocked in Cardiff. The retailers were forced to drop the American article on account of their inability to secure given patterns in a reasonable time, and now there is no American paper on the Cardiff market. Many retailers would like to see the Americans enter the trade, but they say that to do so successfully large stocks and many varieties of patterns must be warehoused at British depots in order to supply orders quickly. Prices must also be cut to a fine point in order to introduce and advertise American goods. The size must be 12 yards long and 22 inches wide.

Smart patterns will have the advantage in the competition, for they will appeal to the well-to-do class, which is criticising the trust for restricting the number of patterns. To accomplish the best results efficient men should be employed as salesmen in the Kingdom to study the needs and tastes of the various counties and cities, for there is the greatest diversity. These salesmen should study not only the retailer, but the decorators as well, a class that plays an important part in the trade. All successful firms in this country seem to adopt the system of having one central depot and branches in all towns. [The name of the one wall-paper retailer at Cardiff who is outside of the combine may be secured from the Bureau of Manufactures.]

FRANCE.

TARIFF DISCRIMINATION—AMERICAN OPPORTUNITY.

In reply to inquiries, Consul-General Robert P. Skinner, of Marseille, writes that the value of wall paper imported into France in 1905

was $450,655, and these figures have varied very little for several years. The consul continues:

The duty upon such paper is $2.51 per 100 kilograms (220 pounds) in importations from the United States and $1.93 from other countries. This explains one reason why American manufacturers are unable to make more rapid headway in France. Approximately 80 per cent of the wall paper used in France is of domestic manufacture, 10 per cent comes from Germany and 10 per cent from England. There are stray importations from the United States, and there is perhaps ground for the hope that a prosperous trade might be built up.

The most fashionable dealer in Marseille informs me that last year he imported a small trial lot of American wall paper, but was not satisfied with his purchase, either as regards patterns or delivery. He asserts that he contracted for delivery of rolls of 8 meters in length, and received rolls of 7 meters in length. I suggested that American papers are probably put up in rolls of yard lengths, and that while a yard is approximately 1 meter, and might serve as such for purposes of comparison, worked out commercially there would be approximately such a shortage as he mentions. He states, however, that there could have been no misunderstanding of this character. He tells me that foreign wall-paper manufacturers do their business through their own commercial travelers.

I have in my possession a set of samples of standard French wall papers, the retail price per roll of 8 meters varying from 38 cents to 5.8 cents. There is a surprising variety of attractive patterns at the lower price named. On the whole I think it quite likely that if American manufacturers will be careful to offer only designs that are artistically correct, and will offer terms to their commercial travelers whereby the retail dealer may know exactly what his purchase will cost him laid down in France, results can be obtained, and particularly in the cheaper grades, as in this country paper stock is necessarily high. [The names of Marseille wall-paper dealers are furnished by the consul to the Bureau of Manufactures, and may be obtained by the American trade.]

LEATHER PRICES AND MARKETS.

GERMANY.

LOWER RATES IN GERMANY—SHIPMENTS TO AMERICA.

Consul J. I. Brittain, of Kehl, supplies the information that the German leather market is at present in rather an unsatisfactory condition. He writes:

It is said that consumers have but little stock, and the supply is only moderate, but prices are declining sharply. This decline in the prices of leather is said to result from a sharp decline in the prices of hides since the month of September. I am informed that hides have declined 25 per cent in price since the close of September.

The decline in the price of hides is, however, largely confined to the home production, as the South American and Indian markets remain quite firm, with light supplies. The decline, however, has not thus far affected sheep, goat, and other skins. There is considerable unrest

among the consumers of leather, as they insist that prices for leather must further decline, and ultimately affect the prices paid for boots and shoes. The various boot and shoe factories are busier than ever before, but insist on concessions.

Tanners say they can not afford to lower their prices, but the probabilities are there will be a decline in the prices to consumers. Tanning materials are paying a high import duty, and Hungarian makers of tanner's bark announce they have formed a syndicate and will advance the prices 25 per cent. At present the hide and leather situation is not in a very satisfactory condition in Germany, and the exporters of hides are again turning their attention to the American market. I have just been informed by one of the leading exporters of hides in the city of Strassburg that they anticipated increased shipments of hides from Germany to the United States.

ASIATIC TURKEY.

AMERICAN PRODUCT FINDING FAVOR AT SMYRNA.

Consul E. L. Harris finds that the major portion of the leather used in Smyrna for uppers is imported, very little being manufactured locally. He writes:

Hitherto French and German leather has commanded the market to such an extent that only within the last two years has American leather been able to make any showing at all. The qualities most used are calf and glazed kid—black for the winter season and tan for the summer. There is also a small trade in fancy colored kids for ladies use. Smyrna imports yearly about 3,500 dozen calfskins, valued roughly at $140,000, and 2,000 dozen glazed kid, worth $50,000. America's share of this trade last year amounted to about $10,000 and there is every prospect of a speedy increase. American leather is just beginning to find favor among the boot and shoe makers of Smyrna.

In preparing goods for shipment, exporters should be careful to pack the leather in strong cases, securely closed with iron bands, to prevent dampness, etc., on the way. Neglect of these precautions has led to complaints on the part of importers. If the American dealer will comply more or less with the wishes of the importer, there is no reason why a growing business in this branch could not be established. [The names of principal importers at Smyrna can be obtained from the Bureau of Manufactures.]

There is a small trade done in carriage leather, but the French and German dealers seem to command the market. The small quantities of this sort of American leather which have reached this market have failed to meet with approval, for the reason that it is not usually sufficiently pliable after the long journey to be handled easily.

Most of the sole leather used is manufactured locally, there being several tanneries making this article. What little is imported comes from France. Attempts to introduce American sole leather have not been successful. The local dealers claim that the home-made article is superior to the samples submitted.

A small trade is done in furniture leather by France, and from samples of American leather received by local firms in imitation of French Morocco leather it would seem that there is a fair prospect of America obtaining the whole of this trade, inasmuch as the prices quoted are below those quoted for the French article. The trade must be done

through a local commission house and not direct with the furniture makers, who for the most part are of no financial responsibility.

ITALY.

INCREASING IMPORTATION OF HIDES AND LEATHER.

Consul James E. Dunning, of Milan, in a report on the Italian leather market, says that on account of the supreme importance of the Italian boot and shoe trade the ordinary grade of rawhide stock is being imported in large quantities under the duty-free provisions of the Italian tariff.

Tanned leather pays a duty of $5 per quintal, excepting skins tanned with the fur attached (used in making fur-lined boots, etc., as well as in the construction of fur garments), which pay $12 per quintal. Imports of tanned leather for sundry uses are growing rapidly, having increased from 4,000,000 pounds in 1901 to 5,000,000 in 1905 (for the whole of Italy), while rawhides to the amount of 48,000,000 pounds were imported free of duty in 1905—an increase of about 9 per cent over similar importations registered for the year 1901. Central and South America send a full third of the rawhides imported for tanning in Italy and English possessions in Asia supply one-fifth, France one-seventh, and African countries one-tenth. Germany supplies more than half the tanned leather imported into Italy; France, Italy, Austria, and North America sending the remainder. North America sent 97,000 pounds of tanned leather into Italy in 1905 according to the official figures of the custom-houses.

Tanning is carried on on a large scale in the work of preparing the heavy imports of rawhides for use in manufactures. The center of the leather trade of the country is Milan, where there is an extensive and rapidly advancing market in leather novelties and attachments and fittings for trunks, bags, harnesses, motor cars, military equipment, office desks, and smoking rooms. Numbers of large shops do a thriving and increasing retail trade in fine leather goods of every description. The shoe factories are calling for larger quantities of fancy leather for high grades of shoes, and though a considerable volume of imports is still necessary to supply the demand in this special line, the Italian tanners are making strong efforts to meet it out of their own output. Still, at present there is a strong call for fancy leathers of all kinds, for use in every way with which the trade at large is familiar, from belts for women up to high-grade traveling bags and decorated frames for photographs. [A list of leather importers of Milan can be obtained at the Bureau of Manufactures.]

RUSSIA.

MERCANTILE SYNDICATE ORGANIZED TO REACH BRITISH INDIA.

Consul-General Richard Guenther sends the following information from Frankfort:

The shoe trade of Warsaw, Russia, some time ago sent a representative to the British East Indies to study market conditions there in order to ascertain whether the shoe manufacturers of Warsaw could favorably compete in the East Indian shoe trade with the Austrian and German exporters supplying that market. The representative

has submitted his report, and has recommended that $25,000 be spent in the attempt to introduce Russian shoes to British India. For this purpose a syndicate of Warsaw shoe industrials is to be formed.

This consulate-general has, at various times, recommended to American manufacturers the forming of such syndicates, and the sending abroad of their ablest representatives in order to introduce American specialties and leading manufactures with the view of procuring permanently for them large and profitable markets in foreign countries.

ALGERIA.

SALES OF AMERICAN SHOES.

Consul James Johnston, of Algiers, writes that a very large business is done in that city in ready-made shoes of all descriptions, and that American shoes have been imported to a considerable extent. The imitations, however, of American styles, and the superior facilities for payment offered by French merchants, have interfered with progress in sales of American shoes. The consul says there is and will continue to be a good market for American goods, and urges that manufacturers should not neglect it. He furnishes a list of leading shoe houses in Algiers, which is the center of importation for the whole colony. These names are on file at the Bureau of Manufactures.

TELEPHONE SYSTEMS.

GERMANY.

EXTENSIVE LINES THROUGHOUT THE EMPIRE.

Consul-General A. M. Thackara, of Berlin, supplies the following information concerning the telephone systems of Germany:

The telephone business in Germany is under the control of three separate administrations—the Reichs-Postamt, Berlin, being the controlling power for all of Germany, with the exception of Wurttemberg and Bavaria, where separate administrations control the telephone service. Until recently magneto switchboards and subscriber's apparatus have been in use in Germany. Within the last three or four years common battery switchboards and C. B. instruments have been introduced. Berlin is about to be transformed into a central battery system.

There is in Berlin one automatic switchboard of the Strowger type, to which are connected about 90 to 100 subscribers. At the town of Hildesheim, in Germany, an automatic exchange for about 2,000 subscribers will shortly be opened. In Bavaria, subscribers' sets and switching apparatus are of the generator call type, with the exception of the towns of Ludwigshafen, Nuremberg, Fürth, Würzburg, and Neustadt, where common battery service is given. In Wurttemberg all exchanges are still of the magneto type, some of them being with automatic clearing out, but not with transmitter battery supplied from the exchange.

GOVERNMENT MACHINES USED.

The make of apparatus used in Prussia is the Government type, developed in their own workshop, and is manufactured by twelve different manufacturers in Berlin. In Wurttemberg the magneto sub-

scribers' sets are manufactured in the Government workshop, whereas receivers and transmitters of a standard type are bought in the open market.

In Bavaria the apparatus in use are of a Government standard type and are made by manufacturers in Bavaria. Manufacturers from other parts of Germany have not been able to do any business there. At the end of 1905 about 500,000 subscribers' stations were in use in the telephone service of the Reichs-Postamt.

The number of telephones purchased annually amount in North Germany to about 50,000, in Wurttemberg about 3,200, and in Bavaria about 10,000. The service in the larger cities having individual exchanges on the C. B. system is fairly satisfactory, and probably as satisfactory as it is in the larger cities of the United States.

Berlin is at present undergoing a transformation, on the completion of which it is expected to give service which will be up to that given in New York. In Hamburg a new large exchange is being built, which will give fairly efficient service, at an immense cost, however. The service in Munich is very good, probably up to any given in the United States. In Stuttgart, in Wurttemberg, the service is not up to what would be given in a city in the United States, the city having one single exchange.

OPERATIONS IN VARIOUS CITIES.

Consul J. I. Brittain, of Kehl, states that the telephone instruments used there are manufactured by the Goverment at Berlin. In the Grand Duchy of Baden and Alsace-Lorraine it is stated that there are about 5,000 telephones in use, and about 200 new instruments are supplied each year. The rent for the telephones is collected by the post-office officials, quarterly in advance.

Consul Thos. H. Norton, of Chemnitz, reports that the telephone service, with 4,952 receivers in the city of Chemnitz, is the property of the city. Sixty-three neighboring towns are in close telephonic communication with Chemnitz, which employs an additional number of nearly 5,000 telephones.

Consul W. L. Lowrie, of Weimar, sends a report stating that $238,000 is about to be spent in that German State for the improvement of the telephone service. Double wires will be strung and connections made with many points. The improvements were planned by the Government on account of the increase in the use of the long-distance lines. There are now 2,855 telephones in use in the Duchy.

FRANCE.

COMPREHENSIVE SYSTEM IN REPUBLIC—SALES OF INSTRUMENTS.

Consul-General Robert P. Skinner, of Marseille, thinks that there ought to be a good market in France for small telephones for intermural use, but there are difficulties in the way of selling them for use in connection with the public exchanges.

General telephonic communication is a Government monopoly in France. In the large cities, like Marseille, one does not rent an instrument at so much per year, without further responsibility therefor, as in America. One begins by making application for connection and service. For this a fixed rental is paid, after which one pays the State for the wire used in making the connection, and finally purchases the instrument itself. But the instrument can not be adapted to the public

service unless it is of a type approved by the State and bears the Government stamp. Consequently manufacturers who desire to engage in this business must submit their types to the Directeur de l'Exploitation Téléphonique et Télégraphique, at Paris, for inspection, and if they are found acceptable, each instrument must be marked.

Nor is this all, for the mark is good for one year only. If the instrument be not sold before the expiration of one year, the dealer must send it back to Paris to be re-marked, and run the risk of its rejection, this risk, however, being remote. It follows that retail dealers keep only one or two type of instruments on hand, and practically every sale means a special order upon the manufacturer. Foreign manufacturers could hardly hope to build up a very large trade without a first-class general agency at Paris, to push the business and take charge of official matters.

RENTAL CHARGES—GOVERNMENT PURCHASES.

In Marseille the annual cost of telephonic communication is 200 francs ($38.60) plus the supplementary charges heretofore explained. In Paris the annual cost is 400 francs ($77.20), and this system of fixed annual charges plus supplementary charges prevails in all cities of more than 80,000 inhabitants. In cities of less than 80,000 inhabitants the Government puts in the telephone and erects the wire and charges a fee for each communication plus 100 francs ($19.30) the first year; 80 francs ($15.34) the second year; 60 francs ($11.58) the third year, and 40 francs ($7.72) the fourth and each succeeding year. There are other details in regard to this matter, but the foregoing shows that at best the control of a telephone is a somewhat complicated affair. In Marseille there are about 5,000 telephones in use, and the number increases by about 4,300 annually.

The Government thus controls the character of all instruments sold through dealers and at the same time is a large buyer of instruments for its own account and for use in cities of less than 80,000 inhabitants. Complete details regarding the administrative side of the telephone business may be found in the decree of May 7, 1901, and the orders of May 8, 1901, and July 13, 1903. Each year the Government receives bids from private companies for its supply of instruments. At the present time, the magneto type of instrument is used, but the introduction of the common battery is under discussion. The automatic type is unknown.

There might be worked up a considerable trade in house telephones, those of French manufacture being expensive. The use of telephone instruments instead of electric bells, or as supplementary thereto, is very unusual in this country outside of hotels and workshops. The average price paid for telephones for general communication is 120 francs ($23.16).

Consul D. I. Murphy reports that there are 3,430 telephones in use at Bordeaux, and in the entire department of the Gironde there are 4,356.

ITALY.

LINES UNDER GOVERNMENT SUPERVISION.

Consul James E. Dunning, of Milan, reports that aside from the Government telephone line, which is used largely for connecting private systems in order to give a general service throughout the King-

dom, the service in upper Italy is dominated by the Societa Telefonica per l'Alta Italia, the head office of which is in 5 Via Orefice, Milan.

This society has also under its control eight companies, with a total of 2,235 phones.

These lines connect with the national and the Swiss Government lines in order to form a complete system. Included in the main company are the exchanges for the cities of Milan (10,500 phones) and Turin (2,500 phones), and about 1,000 other phones in their suburbs and elsewhere, a grand total of something over 16,000 instruments in use. The lines are under direct Government supervision, if not control, their regulations being subject to the review of the minister of posts and telegraphs, as are their rates. Service, both local and long distance, is as satisfactory as in the larger cities of the United States, considering the fact that Italians have not yet become accustomed to transacting business in this way as Americans do, and the important further circumstance that automatic telephony has as yet made little progress in the Kingdom.

Still, the telephone is commonly used through the Milan district, every corner of which can be reached. Service is not so rapid as in the United States, probably some delay being due to the system of "urgent messages" given precedence on payment of triple rate. In the city of Milan the telephone is considered indispensable among live business people, and residence use is rapidly extending. The dominant company states that it is purchasing about 2,500 instruments a year, of which 1,500 go into upper Italy. The instruments are made in Antwerp and Berlin. They are of the magneto type, central being called by turning a crank. Neither the common battery nor the automatic system has been adopted; thus the field is inviting for automatic telephony on account of the economies.

Rates in Milan are $40 a year for every instrument within a radius of 2 miles of the Milan exchange, and $1.15 additional annually for every one-eighth of a mile beyond the minimum limit. Offices of the National Government of the provinces and the communes are allowed a discount of 50 per cent on these rates. Professional men, pharmacists and others of that class, are allowed a special rate of about $31.50 annually for each instrument used, subject to the same extra rate for points outside the minimum limit, and with a 10 per cent discount for subscribers taking three or more telephones. These rates apply in the larger cities of upper Italy, and are slightly less in the smaller towns. The usual arrangements are made for extra bells, desk sets, etc. In Milan nearly all wire lines are run in underground conduits.

As related to the ambitions of American exporters of telephone supply material, the market in Milan appears to be well occupied by the Germans. No American exporter should think of attempting to meet them until he has put on the ground an experienced representative able to speak Italian or French fluently.

MALTA.

AMERICAN INSTRUMENTS ARE USED.

Consul John H. Grout, of Valetta, writes that Malta is fairly well provided with a telephone service.

The Melita Telephone Exchange, a private concern, operates about 250 instruments, most of which are of American make. The type of

instrument in use is what is called "Chicago combination sets with generators," central being called by the use of magnetos. As compared with the ordinary town exchange in the United States, I should consider the service here as very satisfactory. Did business houses of Malta consider the matter of saving of time more than they seem to do, the local service would be twice as large as it is.

SPAIN.

ASSOCIATED COMPANY ABOUT TO EXPAND.

Consul-General B. H. Ridgely reports from Barcelona that there are only three telephone companies of any importance in Spain.

The apparatus mostly used comes from Paris and Stockholm, and is of the magneto type. The Barcelona company has in use 3,053 telephones, at an average rental of $55 each per annum. They also operate a subsidiary company, reaching—with 2,823 telephones—to other cities, while a third company, a branch of the Barcelona company, operates 2,440 telephones, with Madrid for a center. All told, these associated companies purchase about 525 telephones a year. They are energetic and growing, and will, probably, in the near future, take active steps to develop the long-distance system, which, up to date, has been very little developed.

JAPAN AND WALES.

Consul Chas. B. Harris, of Nagasaki, reports that the Japanese telephone service is owned by the Government and is under the control of the department of communication at Tokyo, where the instruments are also manufactured. There are 862 telephones now in use at Nagasaki.

Consul D. W. Williams writes from Cardiff that the National Telephone Company, of that district, purchases about 1,000 receivers a year. Rural telephone systems, such as are used in America, are not known in Wales, only the well-to-do having telephones in their houses. The service is not as satisfactory, ordinarily, as it is in the United States, and the rentals are high.

LAUNDRY INDUSTRY.

FRANCE.

DOMESTIC METHODS STILL HOLD SWAY.

Consul-General Robert P. Skinner, of Marseille, writes that large steam laundries are not common in France.

Domestic washing in France is a fine art, in which the tin boiler, the corrugated-metal board, the rubber-roll wringer, and the rotary washing machine have no part. The clothes go first to some rural spot, where the laundress, over a flat board, washes the clothing in clear running water, pounding it a great deal with a wooden paddle, and using plenty of good white soap.

The clothes are next rinsed, and in a dampened condition returned to the home of the laundress, where the lye washing takes place in a tub, preferably wooden. In the middle of the tub is a hole closed

with a cloth-wound block, so that the liquid contents may seep away very slowly. In the bottom are placed the coarse common articles, and then the finer things. The towels are placed on top, so that dainty "lingerie" shall be protected. Lastly, a special coarse linen cloth is put over the surface and around the edges to prevent the wood ashes, which are to be added, from working down into the articles below.

On top of the coarse linen cloth is strewn a layer of choice wood ashes. In the south of France they prefer the ashes of the olive wood or the truffle oak. Oftentimes the laundress adds to the ashes some roots of the iris plant or other secret aromatic herbs. Now the difficult work begins. First is poured into the tub, very slowly, some cold, clear water, then an equal quantity of tepid water, then warm water, and finally boiling water, until from the tub arise moist, clean odors. If this operation begins at, say, 2 o'clock, and if the week's work is important and the workwoman very conscientious, so slowly does she pour the water that it is sometimes 11 at night before she is through. Then the ashes are removed and the water drips through the bottom of the tub until the following morning, when the contents go again to the riverside, to be a second time washed with soap, but never twisted or stretched, in clear, cold, running water. Nothing remains after this but to dry the linen upon bushes, grass, or clean gravel brook bed, to be finally sent home white, fresh, and sweet smelling, and turned over to another to iron.

DIFFERENT METHOD IN CITIES.

In the cities, modern progress has interfered to some extent with these methods. In the shops there are to be found large galvanized-iron tubs which do not drain from the middle. Into these are piled the clothes which have been first cleansed with soap, and on top of them are placed the ashes. Finally cold water is added, and a fire is lighted under the tub, and the whole mass is boiled until done. These metallic tubs are mentioned without enthusiasm, the best families opposing them. They are sold in large numbers, nevertheless.

The large city laundries use machinery, and provide that luminous, gummy polish upon collars and cuffs called "glacé Américain," because Americans do not like it. In Marseille there are many firms operating in this wholesale manner, particularly for navigation companies. The washers get 77 cents to $1.16 per day, and the women who run the machines 48 to 67 cents per day.

If any American firm can offer a metallic tub for the domestic lye washing that is better and cheaper than that in use, certainly a large business can be done.

[Mr. Skinner also sends the Bureau of Manufactures illustrations and prices of French laundry machinery, which will be loaned to American builders of laundry machinery who apply for them.]

BRAZIL.

GOOD OPENING FOR MODERN STEAM PLANTS IN BRAZIL.

American consular officers have made further reports looking to the development of the foreign field for the sale of American laundry machinery. Consul-General G. E. Anderson, of Rio de Janeiro,

advises that there is a probable opening for modern equipment of this kind in Brazilian cities. He writes:

At the present time there is nothing of the sort here, and a good salesman might get local capitalists interested in modern laundry plants. Practically all the laundry work is now done by hand. Rio de Janeiro, a city with over 800,000 population, has three steam laundries, which only use hot water and crude washing machines. There should also be an opening for American washing machines and similar conveniences. But the whole subject would require a campaign of education. [American laundry machinery firms, wishing to try correspondence, will be supplied by the Bureau of Manufactures with the names of Rio de Janeiro firms who might be interested.]

HOLLAND.

NEW COMPANY IN ROTTERDAM.

Vice-Consul-General C. H. Voorwinden states that there are 70 laundries in Rotterdam, of which only 8 are operated by steam or electricity. The total number of people employed in the 8 steam laundries is 300 girls and 50 men. One new steam laundry (name on file at the Bureau of Manufactures) has been organized with a capital of $20,000. [Names of agents introducing goods for American manufacturers, also dealers and importers of laundry machinery at Rotterdam, are listed at the Bureau of Manufactures for reference by those interested.]

BELGIUM.

FEW STEAM PLANTS IN BRUSSELS.

Consul-General G. W. Roosevelt reports that there are about 100 laundries in Brussels and suburbs, employing from 2 to 26 hands each, and using all kinds of machinery. Of these three only are steam laundries, employing from 135 to 140 hands, one of which is doing an annual business of about $77,000. [Names of dealers in washing machines and other small machinery in Brussels are indexed at the Bureau of Manufactures.]

NEW INVENTIONS.

NEW SEED OIL SEPARATOR.

ITALIAN INVENTION SAVES PRODUCT FORMERLY WASTED.

Consul-General Hector de Castro, of Rome, forwards to the Bureau of Manufactures a description and illustrations of an improved and inexpensive machine for separating and saving oil dregs in the production of olive and other seed oils. The drawings will be loaned to those interested, in the order of their application. Mr. de Castro writes:

One of the great drawbacks in the process of manufacturing olive and seed oils is the formation of dregs and the subsequent extraction of the oil therefrom, resulting always in a certain amount of waste, no matter what the method of recovering the oil may be. A separator lately invented by Professor Bracci, of Spoleto, province of Rome,

appears to fill a long-felt want. In this apparatus of simple and inexpensive construction the oil is separated automatically from the water as fast as the mixture from the press runs into the separator.

The contrivance is not at all complicated. The separator formed of a double cylinder, is filled with fresh water through a tube. The mixture from the press runs into the vat through a sieve and a tube. It becomes diluted and washed in the fresh water, and the oil being lighter rises to the surface and runs out through the opening of a cone into the reservoir and out of a valve; meanwhile the surplus water is forced out through a syphon and outlet.

It is necessary once in a while to renew the fresh water in the separator and to clean the sieve, but all this work can be attended to by a boy without interrupting the work of separation. The separator may be made of any size desired and one single apparatus may be used simultaneously for two or more presses. The great advantage lies in the fact that a better and more even quality of oil is produced, and that there is no waste.

METALIZING FLOWERS AND OBJECTS.

SKILLFUL INDUSTRIAL ART PERFECTED IN A BELGIAN CITY.

Consul-General George W. Roosevelt, of Brussels, reports the successful development there of a new method of making bronze-plated objects, as follows:

The first attempt at metalizing objects was known to the industrial world as long ago as 1861–1866, when unsuccessful efforts were made to metalize flowers, fruits, etc. After six years of laborious research and experiments, H. Monge and C. Arzano succeeded in perfecting the art, and recently established a factory at 17 Rue d'Irland Saint-Gilles, Brussels, for the manufacture of bronze-plated art objects, ancient and modern. By their process, the secret of which they jealously guard, they are enabled to metalize even so delicate a thing as lace or a rose in full bloom.

The object of this establishment is to place handsomely finished metalized objects on the market, in every particular equal to, but at one-eighth the cost of cast bronze, and to immutably fix the incomparable forms nature gives to her products, such as flowers, leaves, fruits, insects, etc. These the most skillful have heretofore only furnished fair imitations by covering the object by electrolytic means with an exceedingly thin but as dense as possible coating of brass, which transforms the natural objects into bronze.

Without disclosing secret methods of metalizing, no hesitancy was observed concerning a description of the length of time that objects were retained in what is known as the bath. The length of time varies according to the character of the object, and the complication of its detail, from twenty-four to seventy-two hours. The subjects selected for metalizing are generally well-known works of famous artists, objects for decorative purposes, and artistic objects, such as card and ash receivers, frames, etc. The finished articles, which resemble in weight, texture, color, etc., real bronze, are entirely different from any manufacture now on the market, as they are declared chemically pure copper and not a mixture or composition. Julius and Arthur Hart, of Indianapolis, Ind., and Los Angeles, Cal., are representing members of the firm in America.

STENOPHILE SOUND MACHINE.

GERMAN INVENTION WHICH TYPEWRITES SPEECHES RAPIDLY.

Consul J. I. Brittain writes from Kehl that, according to the Journal of Alsace-Lorraine, the Stenophile Bivort, recently invented by Charles Bivort, chevalier of the Legion of Honor and director of the Bulletin of the Halles, has given some very practical and interesting results.

The machine reproduces sounds automatically, by syllables, in typographic characters. It is operated in the same way as the typewriter; has a keyboard, which consists of twenty keys. Each key, upon being pressed, prints the corresponding letter on a band of paper, which unrolls itself on a sort of pulley. The characters are the same as those of the usual alphabet. It is easy to read at first sight what the machine has written. It is simple, strong, and light, and exacts in its management neither effort nor rigid attention. A child or blind man can easily learn to use it. It writes very swiftly, writing as high as 200 words per minute, without fatiguing the operator or annoying the orator by noise. By means of an interchangeable keyboard it can be used for all languages.

The machine was recently exhibited in the office of the Journal of Alsace-Lorraine in Strassburg, where it gave excellent results, reproducing both French and German with perfect facility. It is already in use in many schools.

NONREFILLABLE BOTTLE INVENTION.

Consul-General B. H. Ridgely, of Barcelona, calls attention to a very practical new Spanish device in the form of an "inclosure for bottles, flagons, and other receptacles," which has been invented and will soon be put upon the market. A patent for this invention has also been applied for in the United States. Its purpose is to prevent the liquid contained in bottles and other similar vessels from being extracted and replaced with liquid of an inferior quality. The invention compels the breaking of the seal or bottle for extracting the contents, so that the parts may not be replaced in the same condition. It will be particularly valuable in the matter of mineral waters, which are abundantly sold in Europe as well as in the United States, and in which there is much sharp practice. The inventor is Don Raimundo Gabarro Julian, of Jerez de la Frontera.

NEW ENGLISH GAS MANTLE.

Consul F. W. Mahin, of Nottingham, describes an improved British gas mantle said to be as remarkable as the newly invented German mantle, which uses a form of copper cellulose impregnated with certain salts. The new English mantle is dipped in a solution of thorium and cerium, in which is added an ingredient called "laddite," which so adds to its strength and life that it has been uninjured after burning two thousand five hundred hours.

PRECIOUS STONES.

SUPPLIES OF CHINESE JADE.

VALUABLE ORIENTAL GEMS DIFFICULT TO SECURE UNCUT.

Replying to a New York inquiry as to light-green uncut jade, Consul-General Amos P. Wilder, of Hongkong, says it is impossible to get this gem in uncut form except from the Chinese.

Canton is the center of the trade in southern China, and buyers must work through the Chinese to secure it. Even the two leading jewelers of Hongkong buy it in cut form. Jade is sometimes secured in masses of 1 or 2 pounds, of varying quality, and sometimes a rich Chinaman's estate will consist in part of a lump of jade. One New York firm sent a representative to China some time ago, who reported that he bought jade to the extent of $45,000 gold. He reported it cheaper in Peking than in the south. Of the coveted light green there are two shades.

One Chinese merchant in Hongkong (name on file at Bureau of Manufactures) reports that he is ready to furnish uncut jade, but the difficulty would be in drawing the purchaser at a distance and the seller together in price. Unless the prospective purchaser has his own representative on the ground, or possibly some jeweler in China who has the buyer's confidence, it might be well to discuss the matter with a New York firm with Chinese connections (address of such on file at Bureau of Manufactures). They could buy on commission, making use of an expert in China. Jade is the favorite gem among the Chinese, and is largely used by European residents, though in England it is not yet in much demand. Nearly every Chinese woman, even the female laborer, has earrings of green jade.

CORAL IN ITALIAN MARKETS.

PRICES AND INDUSTRIAL USE OF THIS VALUABLE ARTICLE.

Consul James Jeffrey Roche, in a letter from Genoa, explains the grades and values of coral sold in Italy, as follows:

The color of Italian coral is generally of a pale red tint. It is usually manufactured in spherical beads, made into necklaces measuring about 55 centimeters (centimeter, 0.3937 inch) and weighing from 10 to 50 grams (gram, 15½ grains). These are sold at from 30 cents to $5, according to the size of the beads. The highest price of Italian coral is 1 lira, or about 20 cents, per gram.

There are three colors of Japanese coral—red, pink, and white. The prices are as follows:

Rough, i. e., unmanufactured, red, 50 lira (about $10) per kilo (2⅕ pounds); pink, 300 to 5,000 lira (about $60 to $1,000) per kilo; white, 25 lira (about $5) per kilo. Manufactured, red and deep red, 1.50 lira (about 30 cents) per gram; deep pink, 2 lira (about 40 cents) per gram; pink, 3 lira (about 60 cents) per gram; light pink, 3.50 to 4 lira (about 70 to 80 cents) per gram; pure pink, 5 to 60 lira (about $1 to $12) per gram; white, almost pink, 0.30 to 1 lira (about 6 to 20 cents) per gram; pure white (marble), 0.20 lira (about 4 cents) per gram. As a rule Japanese coral has some white spots somewhere. Italian coral has no white spots.

I am informed that white coral (Japanese) has been exported in large quantities to the United States from the district of Naples, for use in the manufacture of fancy buttons, and artificially colored by means of aniline. When so colored they have brought high prices, about twenty-five times what they would bring in their natural color, but the color is short lived and fades in a few weeks.

Italian and Japanese coral are manufactured in the provinces of Genoa, Leghorn, and Naples. Italian coral is found at Sciacca, in the province of Girgenti, Sicily, and the island of Sardinia.

COMMERCIAL TRAVELERS.

REGULATIONS AND LICENSE FEES IN VARIOUS COUNTRIES.

The British Government has issued a bluebook summarizing the regulations in force in British possessions and protectorates and in foreign countries with regard to commercial travelers. An introductory note explains that the book was compiled in order to show the special taxes to which "travelers" are liable and the customs treatment accorded to the "samples" they bring with them. The matter is of equal interest to American commercial travelers.

In India and the majority of the British possessions no special regulations or taxes affecting commercial travelers exist, but India and many colonies give railway facilities as regards the carriage of samples and occasionally in regard to tickets. In most cases samples are not liable to import duty, or not to the full duty, unless actually sold within the colony.

"The agent to the governor-general in Baluchistan states that it might interest commercial travelers to know that the Northwestern Railway grants a rebate on goods exported to Persia if dispatched by the Nushki-Seistan trade route, and also on goods coming from Persia by that route and booked to Karachi or to the Punjab or the United Provinces."

In the commonwealth of Australia duty must be paid on samples, but if the samples are reexported within six months the sum paid is returned. In each of the States slight advantages are granted in regard to luggage. In Victoria "the resident agents of British firms are liable to income tax in respect to their own salaries, bonuses, commissions, or earnings in Victoria. As agents they are liable also to assessment for their British firms in respect of the income or profit of those firms earned in Victoria. They are not liable to any license fee." In Tasmania an importer's license of £10 ($50) per annum is payable by resident agents of firms not domiciled in the colony. In New Zealand commercial travelers are liable to certain payments directed to protecting the colony's income-tax revenue.

In Cape Colony commercial travelers are required to take out annual licenses, and the same rule holds in Natal, the Transvaal, and Orange River Colony, but they receive railway facilities in return.

CANADA FAVORS BRITISH SAMPLES.

In Canada rebate of duty under the preferential tariff is allowed on samples "of British origin arriving from any British country." British Columbia obliges commercial travelers to take out a license.

In most foreign countries the British commercial traveler, in common with those of other nationalities, has to take out a license, but, as a rule, it is not heavy. In France and several other countries he is treated on the basis of "reciprocity," and as foreign commercial travelers are exempt from special regulations in the United Kingdom, the British traveler is similarly treated in the countries above referred to. In Austria and Hungary special regulations are in force on the following lines:

"The regulations in force in Austria governing the operations of commercial travelers, whether native or foreign, strictly forbid the solicitation of orders from private individuals, and prescribe that the dealings of all travelers or agents must be confined to such firms or individuals as in the course of their business actually make use of the goods offered them, except in certain cases."

In Mexico it is necessary to ascertain what is payable in the different States, which vary considerably.

"The rates of the taxes payable by commercial travelers vary considerably in the different States of Mexico, and in many cases municipal taxes are levied in addition to the State taxes. In many cases it is to be observed that the amount of the tax to be paid rests, within certain limits, on the decision of the local official, whose duty it is to assess the tax. A further charge of 25 per cent of the taxes leviable in the various States is made for the Federal revenue. In addition to the ordinary taxes, a Federal stamp tax of one-half per cent is levied on the value of sales effected in Mexico."

In the Netherlands foreign commercial travelers are liable to a tax on their professional income if they are not domiciled in the country. In the Dutch East Indies they are liable to a tax of 2 per cent on their income. Roumania demands from the foreign commercial traveler a "certificate of legitimation," and places restrictions resembling those in force in Austria on the taking of orders from private persons.

In Russia two licenses must be taken out by a seller of goods, and provincial dues have to be paid in the interior. No special railway facilities are given.

FLOWER SEED MARKETS.

TEMPERATE ZONE VARIETIES FOR WEST INDIAN GARDENS.

Consul W. W. Handley of Trinidad, believes that it may be of interest to American exporters of flower seeds to have a list of the temperate flower seeds which have been tried in the West Indies. The following list, which is far from complete, has been experimented with in the West Indies, and applies to altitudes of 100 to 700 feet:

Plants which grow well with very little care:

Abutilon.	Cosmos.	Tuberose.	Gaillardia.
Asparagus plumosus.	Dolichos.	Zinnias.	Marigold.
Begonia (fibrous rooted).	Gourds.	Amaranthus.	Portulaca.
Celosia.	Lantana.	Balsam.	Solanum.
Ipomoea grandiflora.	Petunias.	Canna.	Torenia.
Marvel of Peru.	Ricinus.	Coleus.	Vinca rosea.
Nicotiana affinis.	Sunflowers.	Datura.	

Plants which require more or less special care in soil, shading or manuring and often do not succeed so well as in temperate zones, but have all flowered fairly well:

Asters.	Canary creeper.	Fuchsia.	Geranium.
Begonia (tuberous rooted).	Carnation.	Gloxinia.	Heliotrope.
Chrysanthemum (show varieties).	Cyclamen.	Honeysuckle.	Myosotis.
	Clematis.	Lavender.	Salvia splendens.
Everlasting flower.	Dahlia.	Mignonette.	Sweet William.
Violets (California).	Dianthus.	Nasturtium.	

The following plants failed to flower, or flowered very poorly; all grew to some size from the seed or bulb:

Bermuda lily.	Calceolaria.	Narcissus.	Sweet peas.
Pelargonium (Lady Washington geranium.)	Cineraria.	Pentstemon.	Tulips.
	Gladiolus.	Pansies	Wallflower.
Primulas (Chinese florists).			

DIVING BUSINESS.

MODERN APPARATUS USED IN GREEK WATERS.

Consular Agent Bernard Melissinos, of Piræus, the port of Athens, reports that diving apparatus is used in Greece in the sponge-fishing trade, for salvage operations, and for harbor works.

For sponge fishing there are in Greece some 100 to 120 machines. For salvage purposes there are in the Piræus 4 machines, while 4 more machines belong to contractors. Some diving machines were formerly imported from France, but now they are almost exclusively manufactured locally. The accessories, such as diving dress, hose, and any other articles made of caoutchouc are all imported from England or France, the German products having been found of very inferior quality. [A list of firms which import machinery and mechanical appliances and who might act as agents for diving apparatus, and a partial list of the owners of diving machines in the Piræus, is filed with the Bureau of Manufactures.]

ALGERIA.

CONSIDERABLE HARBOR WORK PROGRESSING.

Consul James Johnston, of Algiers, advises that harbor work of considerable importance is now being carried on at almost all Algerian ports, and necessitates the employment of numerous divers.

Algiers is an important coaling port, and a syndicate has been formed among the firms interested to recover the very large quantity of coal lost during the operation of coaling. At Oran very large extension works have been decided on, and firms of all nationalities are now competing for the contract. Harbor works are in progress at Bone, Djijelli, and Philippeville. [Contractors' names may be secured from the Bureau of Manufactures.]

COMMERCIAL FAIRS.

GERMANY.

EXPOSITIONS TO BE UTILIZED TO PROMOTE FOREIGN TRADE.

Consul Carl Bailey Hurst, of Plauen, reports that a movement has been started in Germany for utilizing national and international exhibitions in the promotion of foreign trade. The consul writes:

A permanent commission for exhibitions has just been established in Germany. It will busy itself with matters pertaining to all large fairs, whether they be held in Germany or in foreign countries. It will be the purpose of the new organization to obtain exact data as to the aims, extent, and possibilities of each exhibition planned. Fully informed, it will be in a position to give precise practical directions to inquirers, with the object of promoting German manufacture and trade. It has happened in the past that an exhibition has been projected abroad with some well-sounding name, and under plausible auspices, which has been largely speculative, of very limited compass, where medals and highest awards are supposed to have been granted for a pecuniary consideration. To protect exhibitors against such eventualities will be one of the objects of the commission.

This organization, primarily a patriotic one, will also endeavor to act as intermediary between the management of the various fairs and German exhibitors, so that the latter will not individually have to correspond in more or less uncertainty with the promoters of the exhibition. Greater solidarity will result in the representation of national interests, and where these are sparsely shown or lacking, the result of a protective supervision is reckoned upon to call attention to an opportunity likely to be neglected. The commission has the support of the great manufacturing and commercial interests of the country, and will be in touch with the Government.

APPROACHING GERMAN EXHIBITIONS.

The exhibitions to be held in Germany during the current year are given below. Although many of them are of only local importance, it is not unlikely that certain American interests could be advantageously represented and developed. For instance, the agricultural fairs can be utilized for the display of our farming machinery. In machinery and industrial exhibitions, such as held here from time to time, there is a wide range for remunerative business. An exposition for out-of-door sports gives an excellent chance for showing portable houses, camping outfits, gunning supplies, fishing tackle, and golf equipment, and where our motor boats could be offered as well as at Kiel. In the poultry shows, incubators, brooders, and various patent poultry house appliances have an excellent chance.

Agricultural exhibitions will be held at Gustrow in May; at Triebsee, Pomerania, at Rostock and at Freising in June; culinary art and food products at Bremen and at Magdeburg in February; floricultural shows at Bremen in April, June, and September, at Dresden and Mannheim in May, and at Essen-Ruhr in the fall; painters' supplies at Rostock in February; poultry shows in March at Siebenlehn, Saxony, in June at Rostock in connection with the agricultural exhibition, and some time in the fall one at Lubbenau, district of

Calau, and another at Gruna, Saxony; exhibition for out-of-door sports at Berlin in April; educational supplies' exhibition at Brunswick in April; army, navy, and colonial exhibition at Berlin in June; automobile exhibition at Dresden in the spring; horticultural shows at Werder on the Haardt in the spring, at Brandenburg on the Haardt in the summer, and at Zerbst in the fall; an art and industrial exhibition at Cologne in May; an exhibition for apiculture in Schonsee in west Prussia, and an aeronautic exhibition at Chemnitz has been proposed, the dates not yet determined.

There are assuredly many opportunities among these minor German exhibitions that ought to be availed of by some of our manufacturers and exporters.

AGRICULTURAL FAIR AT DUSSELDORF.

Consul H. W. Harris makes the following report from Mannheim on forthcoming exhibitions in Germany:

Announcement is made of the twenty-first annual agricultural fair (Wanderausstellung der Deutschen Landwirtschaft-Gesellschaft), which will be held from June 6 to 11 of this year, at Dusseldorf. This fair, which is held in some one of the important German cities each year—last year at Berlin—is by far the most important exposition of its kind on the Continent, and affords exceptional opportunity not only to exhibit American machinery, but to study and compare European machinery, live stock, and other agricultural products. The amount of such products and machinery which is brought together at these fairs is large and covers a wide range. Many American concerns have made exhibits at these fairs from year to year, and it would seem the number could be increased with profit. Parties interested in gasoline engines, the use of alcohol for light or fuel, or in the application of science to agriculture, will be likely to find considerable of interest in the June fair. Agricultural products, including live stock, machinery and tools used in agriculture, and other aids to agriculture, form the chief departments of these fairs. According to the press, the association's address is Landwirtschaft-Gesellschaft, Berlin S. W., II Dessauerstrasse 14.

BELGIUM.

FOODSTUFFS AND COOKING AT GHENT.

Consul Atwell, of Ghent, Belgium, under date of January 18, 1907, informs the Department of State that an International Exposition of Foodstuffs and the Art of Cooking, with special sections for bread, pastry, etc., will be held at Ghent from the 17th to the 25th of March, 1907. Intending exhibitors are requested to address Mr. J. Temmerman, Boulevard du Rabot, 30, Ghent, for all particulars respecting space, etc.

FRANCE.

EXPOSITION AT BORDEAUX.

The International Maritime Exposition to be held at Bordeaux, from May to November, will be under the official patronage of the French Government, of the General Council of the Gironde, and of the Municipality, the Chamber of Commerce, and the Philomathic Society of Bordeaux. An official copy of the general regulations that will govern the exposition has been received through the Department

of State by the Bureau of Manufactures, which may be examined by persons interested. The American embassy at London states that the British consul at Bordeaux has been appointed by his Government to act as commissioner to the exposition for the purpose of assisting British exhibitors, and that a committee of the latter engaged in shipbuilding will display ship models and the many and varied accessories that go to make up the ship of to-day, whether warship, liner, cargo, or pleasure boat.

GREAT BRITAIN.

The third International Tobacco Trade Exhibition is to be held in London, April 20–27, 1907.

The Franco-British International Exhibition of Science, Arts, and Industries will be held in London in 1908.

The International Exhibition of Technical Papers and Periodicals, Graphical Trades, and Advertising will be held in the Exhibition Hall of Industrial Arts in London in the months of May and June, 1907.

The Fifteenth Annual Exhibition and Market of the Grocery, Provision, Oil, and Italian Warehouse, and Allied Trades will be held at the Royal Agricultural Hall, Islington, London, from September 21 to 28, 1907.

SWITZERLAND AND NORWAY.

The third Swiss Automobile and Bicycle Exhibition will open at Zurich on May 15, under the auspices of the Geneva Central Committee. The exhibition, which will be held in the Kursaal, will have a section for foreign exhibits.

Consul E. S. Cunningham calls attention to the motor and motorboat exposition to be held at Bergen, Norway, next summer. American manufacturers can exhibit if they have agents in that conntry, the exhibit to be in the name of the resident agent.

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CONSULAR AND TRADE PUBLICATIONS.

The publications made up chiefly of reports from United States consular officers in foreign countries include the following:

COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.
REVIEW OF WORLD'S COMMERCE, being a summary of the annual reports contained in COMMERCIAL RELATIONS.
DAILY CONSULAR AND TRADE REPORTS, issued daily, except Sundays and legal holidays, mailed gratuitously to commercial and industrial organizations, manufacturers, exporters, and the press.
MONTHLY CONSULAR AND TRADE REPORTS, compiled from the daily, and issued every month with index.
SPECIAL CONSULAR REPORTS, on particular subjects, made in pursuance to instructions from the Departments of State and of Commerce and Labor.

Until July, 1903, all Consular Reports were issued by the Bureau of Foreign Commerce of the Department of State; from that date until June, 1905, they were issued by the Bureau of Statistics of the Department of Commerce and Labor, with which the Bureau of Foreign Commerce of the Department of State was consolidated July 1, 1903; since July 1, 1905, they have been issued by the Bureau of Manufactures, Department of Commerce and Labor. For details of these publications, and the reports remaining for distribution, address "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

The publication of reports on specific subjects, in separate form, was begun in 1890. The editions of many of them are exhausted. The following titles are available for distribution:

Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries; Market for Ready-Made Clothing in Latin America; Foreign Imports of American Tobacco; Cigar and Cigarette Industry in Latin America.
Vol. 23 (1901).—Part I. Gas and Oil Engines.
Vol. 24 (1902).—Creameries in Foreign Countries.
Vol. 25 (1902).—Stored Goods as Collateral for Loans.
Vol. 26 (1903).—Briquettes as Fuel in Foreign Countries.
Vol. 27 (1903).—Markets for Agricultural Implements and Vehicles.
Vol. 30 (1904).—Emigration to the United States.
Vol. 32 (1904).—Foreign Markets for American Fruits.

A few copies of reports made by special agents on trade conditions in the countries visited by them are also available, as follows:

Brazil.	*Egypt.*	*Japan and Corea.*
China.	*India.*	*Mexico.*
Cuba.		

"Trade with China" is a pamphlet of 110 pages, illustrated, with an introductory chapter on Packing. It is compiled from reports made by special agents which were printed in Daily and Monthly Consular and Trade Reports. A few copies are available.

Of the MONTHLY CONSULAR REPORTS, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Department will be grateful for the return of any copies of the Monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, franking labels to be used in lieu of postage in the United States, the Philippine Islands, Hawaii, and Porto Rico will be forwarded.

Persons receiving CONSULAR REPORTS regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

All communications relating to CONSULAR REPORTS should be addressed, "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

VALUES OF FOREIGN COINS AND CURRENCIES.

[As given by the Director of U. S. Mint and published by Secretary of the Treasury Jan. 1, 1907.]

COUNTRIES WITH FIXED CURRENCIES.

Countries.	Monetary unit.	Value in U.S. gold.	Coins.
Argentina	Peso	$0.96,5	Gold—argentine ($4.82,4) and ½ argentine; silver—peso and divisions.
Austria-Hungary	Crown	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns; silver—1 and 5 crowns.
Belgium	Franc	.19,3	Gold—10 and 20 francs; silver—5 francs.
Brazil	Milreis	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British N. A. (except Newfoundland).	Dollar	1.00	
British Honduras	do	1.00	
Chile	Peso	.36,5	Gold—escudo ($1.82,5), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Colombia	Dollar	1.00	Gold—condor ($9.64,7) and double condor; silver—peso.
Costa Rica	Colon	.46,5	Gold—2, 5, 10, and 20 colons ($9.30,7); silver—5, 10, 25, and 50 centimos.
Denmark	Crown	.26,8	Gold—10 and 20 crowns.
Ecuador	Sucre	.48,7	Gold—10 sucres ($4.8665); silver—sucre and divisions.
Egypt	Pound (100 piasters).	4.94,3	Gold—5, 10, 20, and 50 piasters; silver—1, 2, 5, 10, and 20 piasters.
Finland	Mark	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Mark	.23,8	Gold—5, 10, and 20 marks.
Great Britain	Pound sterling	4.86,6½	Gold—sovereign (£) and half sovereign.
Greece	Drachma	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	Gourde	.96,5	1, 2, 5, and 10 gourdes; silver—gourdes and divisions.
India	Pound sterling[a]	4.86,6½	Gold—sovereign (£); silver—rupee and divisions.
Italy	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan	Yen	.49,8	Gold—5, 10, and 20 yen; silver—10, 20, and 50 sen.
Liberia	Dollar	1.00	
Mexico	Peso[b]	.49,8	Gold—5 and 10 pesos; silver—dollar[c] or peso and divisions.
Netherlands	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Dollar	1.01,4	Gold—$2 ($2.02,7).
Norway	Crown	.26,8	Gold—10 and 20 crowns.
Panama	Balboa	1.00	Gold—1, 2½, 5, 10, and 20 balboas; silver—peso and divisions.
Peru	Libra	4.86,6½	Gold—½ and 1 libra; silver—sol and divisions.
Philippine Islands	Peso	.50	Silver—peso, 50, 20, and 10 centavos.
Portugal	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Ruble	.51,5	Gold—5, 7½, 10, and 15 rubles; silver—5, 10, 15, 20, 25, 50, and 100 copeks.
Spain	Peseta	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden	Crown	.26,8	Gold—10 and 20 crowns.
Switzerland	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Piaster	.04,4	Gold—25, 50, 100, 250, and 500 piasters.
Uruguay	Peso	1.03,4	Gold—peso; silver—peso and divisions.
Venezuela	Bolivar	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

COUNTRIES WITH FLUCTUATING CURRENCIES.[d]

Country and monetary unit.	Apr. 1, 1906.	July 1, 1906.	Oct. 1, 1906.	Jan. 1, 1907.
	Cts.	*Cts.*	*Cts.*	*Cts.*
Bolivia:				
Silver boliviano	47.8	48.0	48.5	51.0
Central America:				
Silver peso	46.5	48.0	48.5	51.0
China:				
Amoy tael	78.3	78.8	73.0	83.6
British dollar	.....	.....	52.3	55.0
Canton tael	78.1	78.5	79.2	83.3
Chefoo tael	74.9	75.3	76.0	79.9
Chinkiang tael	76.5	76.9	77.6	81.6
Fuchau tael	72.4	72.8	73.5	77.3
Haikwan (customs) tael	79.7	80.1	80.8	85.0
Hankow tael	73.3	73.7	74.3	78.2
Hongkong dollar	51.5	51.8	52.3	55.0
Kiaochow	77.3	77.7	77.0	81.0
China—Continued.				
Mexican dollar	.....	.....	52.6	55.4
Nankin tael	77.5	77.9	78 6	82.7
Ningpo tael	75.3	73.9	76.4	80.3
Newchwang tael	73.4	75.7	74.5	78.4
Peking tael	76.3	76.8	77.5	81.5
Shanghai tael	71.5	71.9	72.6	76.3
Swatow tael	72.3	72.7	73.4	77.2
Takau tael	78.8	79.2	79.9	84.1
Tientsin tael	75.9	76.3	77.0	81.0
Persia:				
Silver kran	8.8	8.8	8.9	9.4
Straits Settlements:				
Silver dollar	.....	.....	52.3	56.8

[a] The rupee, $0.3244, 15 to the sovereign, constitutes the money of account.
[b] Seventy-five centigrams fine gold.
[c] Value in Mexico, $0.498.
[d] Coins of silver-standard countries are valued by pure silver content at average market price of silver for the three months preceding date of circular issued by U. S. Treasury Dept.

DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

MONTHLY CONSULAR AND TRADE REPORTS

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NOTE.—A number of reports from special agents of the Department of Commerce and Labor on the cotton trade in foreign markets will be issued in a special pamphlet, copies of which may be obtained by addressing the Bureau of Manufactures.

MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C. APRIL, 1907 No. 319

EUROPE.

GERMAN EMPIRE.

AMERICA'S INCREASED PURCHASES.

VALUE OF LAST YEAR'S EXPORTS TO THE UNITED STATES.

Consul-General A. M. Thackara, of Berlin, has furnished a tabulated statement showing the declared values of exports to the United States from the consular districts of Germany, during the calendar years ended December 31, 1905 and 1906, respectively, and the general totals of the last three calendar years. The consul-general adds:

The unexampled prosperity which is now reigning in this country is reflected in the results shown in the tables above referred to. The value of the declared exports for 1906, namely, $152,832,455, an increase of $26,699,256, or 21.2 per cent as compared with the previous year, has broken all former records. Compared with the value of declared exports in 1904, the increase is still more marked, being $41,592,229, or 37.4 per cent.

The value of the declared exports from this consulate-general during 1906, not including its agency of Sorau, were $13,100,122, an increase of 28 per cent as compared with 1905 and of 60.6 per cent in comparison with 1904.

The declared value of exports to the United States by consular districts from Germany during the calendar years 1905 and 1906, respectively, are shown in the following tables:

District.	1905.	1906.	Increase or decrease.
Aix la Chapelle	$1,650,588	$2,097,719	+ $447,131
Annaberg	476,179	675,207	+ 199,027
Bamberg	1,311,657	1,637,971	+ 326,314
Barmen	4,548,397	5,395,830	+ 847,432
Berlin[a]	11,266,841	14,153,068	+ 2,886,226
Bremen[a]	1,937,461	2,433,579	+ 496,118
Breslau	1,525,992	1,789,257	+ 263,264
Brunswick	2,076,784	3,594,875	+ 1,518,091
Chemnitz	8,229,793	10,711,914	+ 2,482,120
Coburg[a]	4,426,215	5,103,964	+ 677,748
Cologne	3,882,274	5,037,844	+ 1,155,569
Crefeld	2,509,945	2,870,883	+ 360,938
Dresden	2,179,982	3,269,065	+ 1,089,083
Dusseldorf	3,372,263	3,755,869	+ 383,606
Eibenstock	2,136,209	1,776,957	− 359,252
Frankfort[a]	8,320,449	8,861,614	+ 541,165
Freiburg	1,000,960	1,345,416	+ 344,456
Glauchau	1,075,914	998,294	− 77,620
Hamburg[a]	15,572,427	17,811,864	+ 2,239,437
Hanover	1,880,871	2,239,941	+ 359,070
Kehl	1,632,600	1,596,593	− 36,007
Leipzig[a]	10,243,733	11,438,829	+ 1,195,096

[a] Including agencies.

District.	1905.	1906.	Increase or decrease.
Magdeburg	$8,400,156	$11,614,643	+$3,214,487
Mayence	2,617,030	2,779,231	+ 162,201
Mauheim[a]	5,658,816	5,697,201	+ 38,385
Munich	913,442	1,340,928	+ 427,485
Nuremberg	5,165,555	6,061,466	+ 895,910
Plauen[a]	5,649,098	6,275,335	+ 626,237
Stettin[a]	1,201,118	4,706,540	+ 3,505,421
Stuttgart	2,135,230	2,496,165	+ 360,935
Weimar	1,805,953	1,739,427	— 66,526
Zittau	1,329,250	1,524,946	+ 195,696
Total	126,133,199	152,832,455	+26,699,256

[a] Including agencies.

SUMMARY.

1904	$111,240,225
1905	126,133,199
1906	152,832,455
Increase, 1906 over 1905	26,699,256=21.2 per cent.
Increase, 1906 over 1904	41,592,230=37.4 per cent.

ADVERTISING RESTRICTIONS.

BILLBOARDS FORBIDDEN—PRIVILEGES BRING LARGE REVENUES.

In response to inquiries for information in relation to outdoor advertising displays in Berlin, and municipal regulations under which they are governed, Consul-General Thackara has furnished a report which will prove especially valuable to those interested in public utilities in connection with municipal administration. Mr. Thackara writes:

Outdoor advertising displays are closely restricted in this city. Billboards, as they are known in the United States, are absolutely prohibited in Berlin, but in place of such oftentimes unsightly objects, public advertising is confined to a system of neat pillars or columns on the edge of the sidewalk at the principal street corners or intersection. These round hollow columns (called *Litfass Säulen* after the originator) are built substantially of iron and wood, about 12 feet high and 3 feet in diameter, the exterior having an advertising surface of from 11 to 12 square meters. The pillars are used principally for the advertisements of theaters and other places of amusement, for the announcements of newspapers and periodicals and official notices. They are a conspicuous feature of Berlin street life, and are consulted regularly by theater goers, etc. Considerable artistic cleverness is displayed in the arrangement of the differently colored posters, which are mostly in the form of reading matter and not pictures.

BERLIN DERIVES LARGE INCOME.

In April, 1901, the city of Berlin advertised for bids for the privilege of erecting and using these advertising columns within the limits of the city for the term of ten years, and the successful bidders are paying an annual rental to the city of 400,000 marks ($95,200), payable quarterly. According to the terms of the lease, the city covenanted not to grant a similar license to anyone else. Newspaper kiosks, however, are permitted to have advertisements on their walls consisting of wood, tin, iron, glass, etc. At that date there were 700 columns already erected, and the number was at once to be materially increased. the contractors were to erect them at their own cost, but both as to the design and location the approval of the police authorities was to be obtained, and they at once become the property of the city, all repairs and proper maintenance being performed by the contractors.

RIGHTS RESERVED BY THE MUNICIPALITY.

The city has the right to use the interior of the columns for various municipal purposes, such as storing utensils for street cleaning and sand for use in the streets, for switch apparatus, for public electric lights and meters for electric street railways, etc. These columns, therefore, are provided with doors and locks, and the contractors have to keep the interiors properly ventilated and free of moisture. Each column must also have distinctly marked on the upper portion of it the number of the city district and of the police station, the nearest post and telegraph office, the nearest fire-alarm station, the nearest sanitary station, the nearest accident station, and the nearest relief station. Delay in any payment or violation or neglect of any condition on the part of the contractors renders them liable to a fine up to 1,000 marks ($238), and may even cancel the lease. A bond for 50,000 marks ($11,900) was given for the fulfillment of the terms of the contract. The contractors have the exclusive right to use these billboards for advertising purposes, subject, however, to certain conditions.

CHARGES AND METHODS OF POSTING.

The consul-general explains the rates for advertising, which are regulated by the Berlin authorities. The charges are according to space occupied, the maximum varying from 9 cents to 59 cents per day, the latter being for a space of 19 by 29 inches. For placards larger than that the charges are in proportion. The consul-general continues:

All placards must be approved by the police authorities before being posted. The contractors must keep a record of applicants for advertising space, and unless in cases of great urgency the applicants must be served in their correct order.

The city authorities have the right to demand at any time the free posting of such official notices as may be necessary, and for this purpose a special shade of red paper is used, and no private advertisements may, therefore, use that shade.

The posting of bills on the pillars must always be done at such time as to cause the least possible interference with the street traffic, and is therefore usually done at night.

Besides these *Litfass Säulen* the city of Berlin has also leased 30 "Urania" columns for advertising purposes for the annual rent of 15,600 marks ($3,713). These columns are somewhat more elaborate than the others, being solidly constructed of iron; the height is the same, but the interior is not used by the city. They generally contain a large clock, various local official notices, and the advertisements slowly revolve behind glass windows.

MISCELLANEOUS POSTING.

No promiscuous filling up of scaffolding on new buildings with advertisements is permitted here. The owner of a building may paint any exposed portion of it with signs or hang out signs, but permission must first be obtained from the police. At the present time, as in America, multicolored, changing, electrically illuminated signs on the tops and on the entrances of buildings and stores are much in vogue, so that the business part of the city at night time is here and there dazzlingly brilliant.

Show cases placed outside a store have to pay a small tax.

"Sandwich men" are occasionally seen in the streets of Berlin carrying signs, but this is regarded in Germany as a degrading form of labor and consequently this kind of advertising is not much practiced.

TWO VIEWS OF TRADE.

IMPORTANT ADVICE OFFERED TO AMERICAN MERCHANTS.

Consul H. W. Harris, of Mannheim, contrasts two very important views in regard to exporters succeeding in foreign markets. He writes:

In a publication devoted chiefly to American trade, appears the statement that "any goods of first-class quality and properly pushed will sell in Germany." The context shows that the writer refers especially to American goods in the interest of which he is writing. A letter recently received at this consulate from a well-known American manufacturing concern, says: "It has been our experience that there is practically no demand for our products in Germany. We feel that we can advertise our products to better advantage in some other place." This is said of merchandise in all but universal use in the United States, and by a large concern which makes liberal use of advertising and the other means required in the building up of a great business. It is said after considerable effort, as the writers claim, through traveling men and through visits of members of the company to Germany to establish trade here.

GERMAN MANUFACTURERS WATCH HOME TRADE.

Each of these somewhat contradictory views has a measure of truth important to Americans who would trade abroad. It is true that the German market calls for an infinite variety of merchandise; that quality is of importance, and that in the selling of goods there is need of the same energy that is required in like work in the United States. It is true that a considerable variety of American goods has found a ready sale in the German market, and that the number could probably be considerably increased by diligent effort. It is also true that there has been much half-hearted, planless effort which has furnished no fair test as to whether certain lines of goods would sell here or not. Nevertheless, there is a limit to what any market will take, and so of this one. There are scores of articles made and sold in the United States which could not be sold in Germany because of the price at which they would have to be sold. There are others which could not be sold here because the demand for them does not exist. This is the conclusion reached as to its own goods by the concern whose letter is quoted at the beginning of this article.

There are some things for which a demand may later be created without perhaps enuring to the benefit of any foreign trader. The German manufacturer watches the home trade with sleepless care. If he does not make a hatchet or a handsaw, a top buggy, or a road cart, or a motor boat, it is probably because he sees that at present there is but little demand for these things. Let the demand arise and a score of factories soon prepare to supply it. Seven years ago, in this city, enameled bath tubs and modern sanitary plumbing were just being introduced, and American wares were well in the lead. To-day such tubs and plumbing are put into all the better houses and the American

article has practically disappeared. Cream separators were introduced into Germany by an American concern. They no sooner became known and a demand for them arose than more than twenty German factories were making separators which are probably in as common use here as in the United States. The same might be said of lawn mowers and a considerable list of tools and appliances.

THE LESSON TO BE LEARNED.

The moral of all this is that no mere generalizing as to what ought to sell or might sell in a given market should take the place of intelligent inquiry as to the peculiar trade conditions of each country. There are many avenues open to American trade in each of the great European countries, while others are, from the nature of things, practically closed. To attempt to force goods into the latter is but to waste time and money and perhaps neglect valuable opportunities in other countries. The German manufacturer with an export trade to the United States of manufactured goods amounting to a round $100,000,000 yearly, and including hundreds of different articles, well knows that there are many things he can not sell in the United States, and he wastes no time in trying to do so, but concentrates his efforts on the South American States, on Russia, Japan, China, and other countries where trade conditions are more favorable to him. There are large manufacturing concerns in this consular district, several of them with a valuable export trade, but which never send a shipment to the United States, simply because they could not sell their wares there at a profit. They have selected those countries into which their goods can go, and with skill and energy are building up a great foreign trade in them. Many American concerns have pursued the same policy with marked success.

The fact that Germany has a great textile trade to several foreign countries (including the United States), that her machinery goes into South America and into all parts of the East, that thousands of thrashing machines and portable engines go to Russia, that her foreign automobile trade is a valuable one, and that each year sees further diversifying and enlarging of her power as a manufacturing people, are facts not to be passed over by the trader seeking a market for similar wares. These facts point in truth to the rapid increase of wealth and the creation of new demands in the supply of which American trade can hope to share; but they point also to a watchful and vigorous competition which those who would trade here must be prepared to meet.

TRADE REVIEW.

LAST YEAR'S OPERATIONS AND PRESENT OUTLOOK.

Summaries of the annual reports of the chambers of commerce of many of the German cities for the year 1906 have appeared in the newspapers. All these reports emphasize certain features of the industrial conditions of Germany during the year, viz, the general activity in nearly all branches of trade, the increased cost of raw material used in manufacturing, higher rates of taxes, added cost of living, and unsatisfactory trade agreements with several foreign countries. The opinion is quite generally expressed that the present prosperous era is certain to continue through 1907, and probably longer, but that reaction will likely come in the not very distant future. The

earnings of the state and other railways show a marked gain over the preceding year. Much complaint of scarcity of cars has a somewhat familiar sound.

MANNHEIM REPORT.

The report of the Mannheim chamber shows the same general trend of those made in other cities. It refers briefly to many industries in this locality, and, with few exceptions, shows their condition to be favorable. The warning is sounded against a too optimistic view that present conditions will continue indefinitely. Increasing competition in several countries of export is noted, among which Russia, Austria-Hungary, Switzerland, and Italy are named. It is suggested that there is a tendency toward oversupply of the home demand, which, by increasing the number of those seeking foreign trade, will add to its difficulties. The increase in cost of many kinds of raw materials and higher wages have, it is said, tended to check such overproduction. Strikes and other movements among the working classes have been frequent during the year, and have in many instances resulted favorably to these classes. The present high cost of living is referred to as a matter of wide economic importance for which no remedy seems to be in view.

SHIPPING TAX—GRAIN AND TOBACCO TRADES.

A project now before the Imperial Government to tax river shipping has met with much opposition from the shipping interests of the Rhine, which greatly exceed those of any other of the German rivers. The subject has been before the chamber of commerce of this city several times, and is dwelt upon at length in its report as imposing a yearly minimum burden of $238,000 on Mannheim shipping, and as being a departure from long-established usage, sanctioned, it is claimed, by the Federal constitution.

The grain trade of which Mannheim is an important center showed special activity before the coming into effect of the new tariff law of March 1. This was followed by a reaction and a further falling off due to low water in the Rhine and a scarcity of railway cars. The milling industry, represented by several large modern flouring mills, was affected by the same causes which operated against the grain trade and is stated to have had, upon the whole, an unsatisfactory year.

The tobacco trade, which forms one of the important industries of Mannheim, has shown various more or less interesting features. The American demand upon Java and Sumatra tobaccos has, it is stated, tended to raise prices of these products to the advantage of native German tobaccos, but this advantage has been chiefly offset, so far as the dealer and manufacturer are concerned, by higher prices to growers and higher wages and salaries. The cigar manufacturers, it is said, have had on the one side higher raw products and wages, with increased cost of boxes and other packing materials and on the other the pressure of dealers for low prices and long terms of credit. Their case is stated to have been in the main an unsatisfactory one.

CONDITIONS IN VARIOUS INDUSTRIES.

The chemical and color industry, in which the district ranks first in Germany, has shared in the general prosperity, suffering in some cases from the cost of raw material. The condition of the wholesale drug trade is described as altogether favorable. The extraordinary

shortage in the wine crop of 1906 had its effect in advancing prices of wines of former years, and in stimulating the importation of cheap wines for mixing purposes. Sugar refining suffered chiefly from the small margin between the cost of raw sugar and the selling price of the finished product.

In various branches of the iron trade activity is noted. This was true in nearly all the lines of machine manufacture. Thus in that of agricultural implements, electrical appliances for both light and power, bridge and other structural work, furnaces and heating appliances little or no complaint is to be heard. The bicycle trade, on the other hand, has ceased to be remunerative. The same is said to be true of gasoline engines, due chiefly to competition and low prices.

In very many of the several branches referred to in the report, the increased cost of raw material is named as a factor of much importance. This is said of the brewing industry, canning industry, commercial fertilizer manufacture, and the soap industry—represented here by a single large factory. Cocoanut butter and other substitutes for butter and lard are forced more or less into use by the high price of animal products.

AMERICAN PRODUCTS.

CLASSES OF GOODS AND STYLES FAVORED AT MANNHEIM.

Consul Harris also reports concerning the sale of a large number of American products in that part of Germany as follows:

A survey of merchandise offered for sale in this consular district the past year shows a gain in the amount and variety of American goods displayed. There has been a marked tendency to adopt American styles in shoes and in men's clothing. The fashion plates displayed in the windows of most of the men's tailoring establishments in this city are American styles. These plates are followed not only in styles of cutting, but in materials used, in neckwear, etc. American shoes are sold in several stores, but not to the extent that their superiority would seem to warrant.

All the principal American typewriters are sold in Mannheim, as well as large quantities of cash registers, roll-top desks, combination bookcases, file cases, cameras and photographic supplies, carpet-sweepers, ice-cream freezers, and other articles of household use. American adding machines and pianolas are offered, but have not as yet been largely sold here. The Singer Sewing Machine Company, true to its usage, displays its goods in an excellent location, not only in this city, but in several other cities of the district. American cut glass and other table glassware have formed attractive holiday displays. Many novelties and notions are offered of various stores of the city. Leather dressings and other similar preparations are found in many stores. Phonographs are said to have had a considerable sale.

FOOD PRODUCTS AND MACHINERY.

But one American cereal is offered here, so far as is noted. American evaporated fruits are widely sold. Winter apples are offered at high prices. Canned meat products are kept in a few stores, but their sale is reported small. A fairly complete line of American bottled goods has been offered the past few months, somewhat as an experiment, which has been only partly successful, due somewhat to the high rates of duty paid by this class of goods, which in some cases amounts

to about or quite 100 per cent of the wholesale selling price in the United States. The steady growth in popularity in this class of goods in the United States would seem to show that by special effort in the larger German cities their use might be considerably increased, even at the high prices at which they have to be sold.

American mowers, reapers, harvesters, hayrakes, and a few other agricultural implements have had a considerable trade in this part of Germany, due largely to the consummate skill with which they have been handled. No more admirable text-book could be placed in the hands of those who would sell American products abroad than a concise history of the methods which have placed an American mower and harvester in so many grass and grain fields of the world. Probably no other branch has concerned itself so little with the conventional ideas of how merchandise ought to be sold, with which the European agent is apt to be well supplied, and no branch has more fully demonstrated the superiority of the American agent for American goods.

Machinery for iron and wood working, and for miscellaneous purposes, is offered for sale in this district, but is not kept in stock in large quantities. It is for the most part in the hands of German agents, who are also selling the German product. A reversible, well-constructed car seat of American make is used on a large number of the newer street cars on the city car lines, and is much in favor because of its comfort and convenience.

Mannheim is a center of distribution in a large trade in American grain, oils, tobacco, and other staples, which goods easily hold their own from year to year.

TRADE OF ANNABERG.

INCREASED EXPORTS TO UNITED STATES.

Consul G. N. Ifft, of Annaberg, furnishes a report concerning the trade of his district during the year 1906, in which he says in part:

The year 1906 was a busy and reasonably profitable season for the upper Erz Mountain district of Saxony, of which Annaberg is the business and trade center. There was a fair demand for the products of the district—dress trimmings, beaded bags, belts and fringes, buttons, paper novelties, wooden toys, etc. The declared exports to the United States for the year amounted to $675,208. This is an increase of $199,028 over the year 1905 and of $248,527 over 1904. The year 1906 shows an increase over 1905 in the single item of trimmings and beaded goods of $160,032, and this, with the increase of $23,126 in paper goods, $10,069 in linen laces and table covers, and $9,699 in toys, accounts for the entire gain of the year and more. The exports to the United States for 1905 and 1906 were as follows:

	1905.	1906.		1905.	1906.
Buttons	$50,165	$43,848	Musical goods (strings)	$5,427	$4,622
Corks	499	415	Paper ware	51,251	74,377
Cotton bags, fringes, and half linen mesh	1,594	5,080	Tinsel goods	2,956	2,442
Cotton hose	886	.....	Toys	45,151	54,850
Linen laces and table covers	2,319	12,388	Trimmings, beaded bags belts, and fringes	303,702	463,735
Linen rings	6,300	2,920	Wooden ware	4,197	9,060
Machinery	359	1,025	Total	476,180	675,208
Miscellaneous	1,374	456			

These figures do not represent all the exports from this district to the United States. Shipments from here are usually small, and many fall below $100 in value and are forwarded without declaration. Many Erz Mountain toys and other goods are sold from samples at the great fairs at Leipzig and elsewhere in Germany, and the invoices for such sales are often certified at other places than Annaberg. Many Annaberg district products are also sent to the agents of American importers at other points in Germany for packing, sorting, and shipment to the United States and are often certified at the places where such packing is done. Practically no goods are shipped on consignment, all being purchased by the importers. Several of the larger American houses keep resident representatives here, and there are usually, excepting during January and February, from six to ten other American buyers in the district.

EXPORTS ELSEWHERE—DEPENDENCE ON MANUFACTURES.

Exports to Great Britain, France, Italy, South America, Australia, etc., were also better than for the years 1904 and 1905, but competition has become so keen and the cost of living has so advanced that both the profits of manufacturers and exporters and the earnings of the workers have been anything but satisfactory. "It's a shame to take the goods at the price," said the representative of an American mercantile house a few days since, showing me samples of some recent purchases. The people, however, must live, and it is only through the manufacture of these articles that they are able to earn a living here. The entire district is rugged and mountainous. The mines are worked out and have been practically abandoned for more than a century. Much of the district is forest land, which is rigidly preserved, and such land as is open to cultivation is not highly productive. Domestic animals are few; the land will not produce fodder enough to feed them through the long and severe winters. Freight rates are high, and it does not pay to bring fodder in by rail. Even the hen does not lay eggs enough to pay for what she eats during the winter.

Practically all foodstuffs, meat, dairy products, eggs, vegetables, fruits, etc., must be brought from a distance and are abnormally high in price. Fresh beef retails at from 25 to 35 cents per pound; eggs at from 2 to 3 cents apiece; ham at from 37 to 40 cents per pound; apples at from 7 to 10 cents per pound, and flour, potatoes, green vegetables, etc., proportionally high. Fuel is also expensive.

RAW MATERIALS—A GOOD YEAR.

Practically all raw materials, except wood from which the toys and wood pulp for the manufacture of paper are made, must be brought from other districts. These are mainly cotton, silk and linen thread, braid and cord, glass and metal beads and ornaments, a little cork wood, and some leather for gloves and bags. The entire population of the district, about 185,000, is dependent upon the manufacturing industries and a large proportion of the population are breadwinners. Small factories are numerous, a few in Annaberg, Buchholz, and some of the other larger towns of the district, employ from 200 to 400 hands, but in very many of the so-called factories the limit is from 15 to 25.

In the mountain villages the homes of the villagers are very often the only factories and the members of the family the only employees; all materials used are bought from the importers or manufacturers in the larger centers of trade in Germany. These are furnished the

workers by the so-called manufacturer, and are taken to the home where they are made into the finished product by the united labor of the family. These conditions apply to practically every industry in the district, and are responsible for the fact that invoices for export from individual firms are almost always for very small amounts.

All factories engaged in manufacturing for the American trade have enjoyed a reasonably good year. The demand for dress trimmings proper has been dull, due undoubtedly to changing fashions; but there has been a brisk market for beaded bags, belts, and fringes, which are made by the same people. The manufacturers of fancy calendar backs and wall pockets have increased their shipments to the United States by nearly 50 per cent, and the toy makers and linen lacemakers have also found new demands, but these latter at best are but small items.

AMERICAN GOODS.

Few American goods or products are seen in this district and there is very little demand for such as do find their way here. Shops and stores are small concerns and are conducted on primitive lines. Neither among merchants nor manufacturers have I found any who import directly either from the United States or elsewhere. A well-known American sewing machine seems to be a staple, but it is so all over Germany, and an American organ manufacturer has a branch agency here. One or two dealers profess to handle American shoes, but an examination of the article inspires no confidence, and the attempts of several shoemakers to make shoes from American patterns would not be regarded as successful by Americans. A brand of American pickles is seen on the shelves of the better groceries, as are also some beef extracts and a single brand of soap of American origin. Some small hardware, a few proprietary medicines, some cigars and smoking tobacco, and two brands of whisky, all from America, are found in some of the shops. There is practically no demand for any of these articles. American petroleum is a staple, and American apples are on sale in most of the markets at from 8 to 10 cents per pound, but are not as good as the Tyrolean apple, which sells at the same price. All these articles are bought from the importers at Hamburg, Bremen, or other large German cities.

An occasional agricultural implement of American make is seen, but is regarded as the fancy of some rich farmer rather than of practical utility. American agricultural implements are not adapted to local conditions. Where men plow with a single horse or ox, where most of the vehicles are drawn by a single animal hitched to the side of a tongue, where ox teams are not infrequent and an ox and a horse are often seen hitched together, where delivery wagons or sleds are drawn by a dog and a boy or sometimes by a dog and a woman, there is little opportunity for the introduction of American agricultural implements or for American vehicles.

A proposition for a municipal electric-light plant for Annaberg has been under consideration for several months past, but has hardly assumed tangible shape.

COBURG'S AMERICAN SALES.

OVER HALF A MILLION DOLLARS' INCREASE LAST YEAR.

Consul-General Frank Dillingham, of Coburg, in his annual report, writes that the cost of living in Germany is higher than at any pre-

vious time, especially in foodstuffs and provisions. Mr. Dillingham continues:

The average wage-earner abstains from eating beef because of its scarcity and high price. In fact, in this part of Germany horse meat is generally used by wage-earners, but when not able to afford this they subsist on black bread, potatoes, and coffee, because of their cheapness.

In spite of the high cost of living, there has been a general and unusual prosperity in the various branches of industry, and there is every indication that these conditions will prevail during 1907. The toy and porcelain industries have grown astonishingly, and labor, both male and female, has been in great demand at somewhat better wages than heretofore paid.

The exports to the United States during the calendar year 1906 amounted to $5,103,965, an increase of $677,749 over 1905. The articles of export are shown in the annexed table:

Articles.	Value.	Articles.	Value.
Artificial glass eyes	$905	Metal ware	$17,399
Baskets	21,182	Mineral water	473
Beer and brandy	33,342	Mineral wax	5,171
Belting, bolata	15,222	Paintings on china	3,917
Cartridges	1,113	Paper ware	10,813
Cotton textures and yarn	12,699	Papier-maché ware and fancy goods	1,826
Dolls and toys	2,637,731	Porcelain and stoneware	1,795,414
Dry colors	12,833	Slate and slate pencils	18,513
Glass beads	35,624	Steel and ironware	22,130
Glassware	162,663	Wafers	2,697
Gloves, leather	42,803	Whetstones	9,208
Guns	35,268	Wooden ware	9,603
Hardware and machinery	4,202	Woolens	91,156
Manganese oxide	21,352	Other articles	3,964
Marbles, china and glass	46,640		
Marks	18,981	Total	5,103,965
Medicinal preparations	9,111		

OPPORTUNITY FOR AMERICAN PRODUCTS.

A very extensive line of good American manufactures can in time and by proper canvassing be successfully introduced in Germany, especially new articles not already on the market. Chief among American manufactures not well known in Germany are boots and shoes of the better qualities, which are liked by the few who wear them because of their superior style and finish and their excellent wearing qualities. There are many unsuccessful inquiries for them in this duchy. The writer can purchase for his own use in New York, including express charges to Coburg and custom duties after their arrival, better shoes and for less money than would have to be paid for those of German make.

In introducing any article it should be borne in mind that an experienced salesman—one who is familiar with the German language—should be sent to personally canvass the trade. Particular attention should be given to the careful and correct filling of orders. Favorable terms of credit should be given, and in no instance should a demand for payment be made upon presentation of the bill of lading. A willingness to cater to the tastes and requirements of the trade should always be carefully observed. If these things are done the United States trade with Germany will grow year by year.

Prices for finished products have not advanced in proportion to the

cost of production, thereby making the margin of profit small and unsatisfactory. But fortunately for the manufacturers of toys in this district most of their stock is sold in the United States, where better prices are realized than in Germany; this trade is expanding every year.

CEMENT INDUSTRY.

LAST YEAR A PROFITABLE ONE—HIGH DIVIDEND RECORD.

Consul-General Hugh Pitcairn, in transmitting statistics from Hamburg concerning the German cement industry, says:

The German cement industry is looking back upon the year 1906 as an extremely favorable one; the business was throughout more profitable in every respect than during a number of previous years. The joint-stock capital of thirty of the largest works, representing approximately $22,000,000, yielded, roughly estimated, from $2,300,000 to $2,500,000 interest, or 10.7 to 11.4 per cent. In the year 1905 the dividend amounted to about 8.5 per cent, calculated on a capital of $21,200,000. Dividends of the companies in question in the last eight years, 1899–1906, were as follows: 14.3, 11.25, 5.24, 4.41, 5.14, 6.58, 8.5, and 10.7 to 11.4 per cent respectively.

The reason for this favorable development in the industry was chiefly the building activity throughout the country in 1906. Although during 1904 and 1905 a similar activity prevailed, prices suffered in those years from the consequences of overproduction. Notwithstanding the fact that in 1905 such an overproduction did not make itself felt so much as in the preceding year, the production during the year 1906, although a number of new works were put in operation, did not in general exceed in a marked degree the demand. This supposition is confirmed by the statistics of the imports of cement during the last year. In 1905 exceptionally large quantities were imported, but in 1906 the imports increased further, as the following statistics prove. During the eleven months from January to November of the last six years, 1901–1906, inclusive, the quantities of Roman and Portland cement and hydraulic lime imported into Germany were as follows:

	Tons.		Tons.
1901	84,185	1904	57,325
1902	51,099	1905	140,271
1903	48,602	1906	221,449

By far the largest quantities were imported from Belgium, chiefly into western Germany. The consequence was that the Rhenish-Westphalian Cement Syndicate, although it was itself in full activity throughout the year, resorted to energetic measures by opening sales rooms in Cleve and reducing its prices to beat down foreign competion. In other respects, however, prices increased slowly but steadily. This favorable tendency was furthered by the fact that the feeling among the various German cement syndicates was a more peaceable one than in the preceding years; furthermore, because enormous quantities of cement were exported, in which movement the San Francisco and Valparaiso earthquakes were important factors.

MILLS AND RAILWAYS.

PROFITABLE RESULTS RECORDED FOR PAST YEAR'S OPERATIONS.

Consul J. I. Brittain, of Kehl, calls attention to the continued prosperity in Germany, as evidenced by the following industrial results for the past year:

The year 1906 has doubtless been a record year in German commercial life. From January 1 to December 1, eleven months, the production of raw iron amounted to 11,351,539 tons, as compared with 9,958,539 tons during the corresponding period of the preceding year. During the same period the amount of coal produced amounted to 125,693,158 tons, as compared with 110,672,797 tons produced during the same period in the preceding year. The production of coke increased from 13,878,482 tons to 18,475,721 tons; soft coal from 47,426,651 tons to 51,329,874 tons, and briquettes from 11,748,721 tons to 13,435,283 tons. One encouraging feature of these increases is the fact that they were the result, to a very large extent, of home demand. In order to supply the demand for iron and coal it was necessary to import large quantities from England.

Mining was not the only branch of industry which indicated great prosperity. The textile industry showed great improvement in the various branches and a very fine export trade. The electrical industry showed great improvement as compared with the business for the previous year. The rise in prices resulted in increased dividends, which has made an excellent feeling in business circles. Railway traffic largely increased during the past year, which is another indication of increased business both at home and abroad. The process of amalgamation in industrial enterprises, which has formed such a distinctive feature during the past few years, made further progress during the year 1906.

In Alsace-Lorraine the length of the various railway lines, exclusive of some of the small branches, is 1,082 miles of standard gage and 48 miles of narrow gage track. The total receipts for the past year were $25,944,632 and the total expenditures were $19,146,937, which shows a surplus of $6,797,695, an increase of 9⅞ per cent over the preceding year. The total capital invested in the railways is $157,803,687.

ORIENTAL SYNDICATE.

SYNDICATE ORGANIZED TO PROMOTE TRADE.

Consul-General Richard Guenther, of Frankfort, says that to promote German trade with the Balkan States and Asia Minor, a syndicate of German manufacturers and merchants has been formed at Berlin, which offers its members the following advantages:

Information concerning the purchasing capacity and business conditions of the different districts in those countries, a description of articles salable there including the procurement of samples of merchandise imported and of the products which are raised for export in those Oriental districts. This company will open general agencies at Belgrade, Bucharest, Sofia, Saloniki, Adrianople, Constantinople, and Smyrna, which will answer all inquiries about business matters and attend to the introduction and sale of goods, as also to the purchasing of raw materials and products indigenous to said countries, acting in this way as the representative and commissioned agent for German firms.

UNITED KINGDOM.

GROWTH OF FOREIGN TRADE.

IMPORTS AND EXPORTS COMPARED FOR PAST THREE YEARS.

The following statistics are compiled from official British returns, showing the imports and exports of the United Kingdom from and to the several countries for the calendar years 1904, 1905, and 1906:

Country.	Imports.			Exports.		
	1904.	1905.	1906.	1904.	1905.	1906.
British Possessions:						
East Indies	$228,195,000	$230,555,300	$249,072,300	$219,878,200	$231,786,500	$246,595,300
Australasia	176,824,300	197,180,800	217,948,200	115,288,300	114,139,300	134,860,600
Canada	110,088,200	125,049,600	147,605,800	51,701,800	57,955,200	66,413,200
South Africa	26,556,500	26,965,300	30,843,900	85,131,200	79,530,400	74,219,100
West Indies	9,221,900	9,599,800	10,258,600	9,834,600	9,791,500	10,648,000
Hongkong	2,267,600	1,835,200	3,109,700	21,141,500	18,096,900	14,862,100
West Africa	11,968,800	11,528,800	13,334,300	13,650,500	13,757,600	14,886,600
East Africa	2,978,400	2,774,000	2,924,800	4,939,500	5,148,800	5,971,200
Other possessions	15,971,900	16,745,700	16,850,600	23,180,600	21,839,800	21,675,200
Total	584,067,600	622,234,500	691,948,200	544,746,200	552,046,000	590,131,300
Europe:						
Russia	152,822,700	162,375,600	146,252,900	40,046,400	39,761,500	43,180,500
Sweden	47,239,100	47,828,000	52,202,900	23,213,200	25,269,400	27,247,600
Norway	27,496,500	28,969,000	33,612,900	14,419,400	16,264,000	18,130,700
Denmark	78,360,400	75,951,500	80,571,300	17,850,400	20,093,800	23,711,400
Germany	165,188,500	174,220,700	185,087,600	122,163,800	144,554,600	163,645,800
Holland	168,818,900	172,668,300	178,366,900	39,905,300	47,137,200	56,522,800
Belgium	134,404,000	135,050,300	141,705,500	44,051,100	48,937,500	56,412,508
France	248,712,300	258,085,100	261,785,600	74,233,600	78,549,300	99,746,408
Portugal	13,937,700	14,258,800	16,268,800	10,064,000	10,940,000	12,671,200
Spain	66,534,800	67,444,800	77,095,100	24,111,000	20,663,200	22,585,500
Italy	16,181,100	16,181,100	17,573,000	40,737,600	43,277,800	54,431,800
Austrian territories	8,842,500	7,246,200	5,908,000	9,197,200	9,037,100	11,530,800
Greece	6,151,300	6,462,800	10,818,200	7,192,800	5,693,900	7,866,700
Turkey in Europe	5,426,200	7,102,700	7,991,000	15,313,600	16,730,500	19,448,800
Total	1,140,116,100	1,173,844,900	1,215,239,700	479,499,400	526,909,800	617,132,500
America:						
United States	580,223,000	562,436,100	638,022,500	98,237,700	116,387,200	135,235,200
Mexico	2,885,600	4,303,000	4,126,900	9,100,400	9,149,400	11,319,500
Central America	6,238,800	6,107,200	5,202,300	4,881,100	4,710,200	5,007,600
Chile	26,391,000	29,529,500	30,634,100	15,859,900	21,709,500	29,507,800
Brazil	30,257,300	39,462,600	44,358,000	29,189,300	32,206,700	37,243,500
Uruguay	2,876,200	3,980,700	2,642,600	6,564,900	9,830,300	10,847,400
Argentina	112,197,100	131,831,500	115,862,100	52,789,200	63,279,100	94,555,100
Total	761,069,000	777,650,600	840,848,500	216,622,500	257,272,400	323,716,100
Asia:						
Japan	11,431,500	9,051,700	14,370,700	23,792,400	47,020,100	62,841,200
China	13,441,300	11,387,600	16,079,000	42,869,100	63,981,300	59,561,400
Turkey in Asia	20,151,000	19,714,200	21,597,600	21,607,300	18,234,900	16,494,500
Total	45,023,800	40,153,500	52,047,300	88,268,800	129,186,300	138,887,100
Africa:						
Egypt	69,600,600	72,880,700	82,034,600	40,260,600	38,197,200	43,487,000
All other foreign countries	81,749,300	82,905,600	76,655,300	94,012,500	101,443,700	114,860,600
Total foreign countries	2,097,558,800	2,127,435,300	2,266,825,400	918,663,800	1,053,008,400	1,238,083,300
British possessions	584,067,600	622,234,500	691,948,200	544,746,200	552,046,000	590,131,300
Grand total	2,681,626,400	2,749,669,800	2,958,773,600	1,463,410,000	1,605,054,400	1,828,214,600

The London Economist draws attention to the satisfactory expansion of trade with the British possessions. An increase in the exports to India of $15,000,000 occurred in machinery, railway material, and iron and steel manufactures; an increase in the exports to Canada

and Australia is also reported, occurring in iron and steel and textiles; but a decrease took place in the exports of railway material, mining and other machinery, hardware and cutlery, to South Africa.

Of the total increase in imports from foreign countries of $139,490,100, says the Economist, considerably more than one-half occurred in the imports from the United States, "that country having partly resumed its position as one of our main sources of wheat supply, the value of wheat and flour landed from the States in 1906 being $30,000,000 more than in 1905, the balance being made up of greatly increased quantities of meat, hams, bacon, and other foodstuffs."

The imports into the United Kingdom from the United States in 1906 were nearly equal to the imports from all the British possessions in the same year, viz: $638,022,500 for the former against $691,948,200 for the latter. Of the British exports to foreign countries last year the largest amount went to Germany, $163,645,800, the United States coming next with $135,235,200.

INCREASE IN ITS FOREIGN COMMERCE FOR THE LAST CALENDAR YEAR.

As compared with the year 1905, the trade of 1906 shows the following gains: In gross imports, $209,110,700; in exports of British and Irish produce, $223,160,300, a gain of $14,048,600 in the exports of British and Irish produce over the increase in the gross imports of foreign produce.

The following statement, showing the classes of imports and exports composing the foreign trade of the United Kingdom, during the calendar years mentioned, will enable American exporters and importers to form a more comprehensive opinion as to the classes of products, raw and manufactured, wherein the recorded increases in the trade of 1906 occurred:

Classes of articles.	Imports.		Exports of British and Irish produce.	
	1905.	1906.	1905.	1906.
Food, drink, and tobacco:				
Grain and flour	$336,763,800	$330,337,500	$13,475,100	$12,585,900
Meat, including food animals	240,559,400	253,272,600	4,498,500	6,519,900
Other food and drink	580,184,200	552,695,200	71,656,600	78,552,100
Tobacco	18,112,600	23,038,500	4,777,900	5,165,400
Total	1,125,619,500	1,159,343,800	94,408,100	102,823,300
Raw materials:				
Coal, coke, and manufactured fuel	207,300	229,300	126,826,300	153,315,700
Iron ore, scrap iron, and steel	26,890,400	32,930,700	2,303,400	2,903,000
Other metallic ores	37,089,000	44,007,100	557,500	857,100
Wood and timber	113,263,000	133,883,900	375,200	446,300
Cotton	254,863,100	273,133,900		
Wool	129,686,000	148,625,000	12,223,300	14,121,100
Other textile materials	70,622,800	82,859,500	756,800	800,600
Oil seeds, nuts, oils, fats, and gums	114,853,800	124,797,500	12,616,400	13,753,200
Hides and skins	39,344,600	52,068,200	9,022,000	10,759,400
Paper-making materials	18,504,900	19,152,600	2,607,500	3,476,400
Miscellaneous	110,145,800	117,621,700	9,424,000	10,146,400
Total	915,420,700	1,029,309,400	176,712,500	210,579,200
Manufactures:				
Iron and steel, and manufactures of	41,788,500	40,684,000	154,883,100	194,545,600
Other metals, and manufactures of	106,287,800	137,337,900	43,411,600	49,283,500
Cutlery, hardware, implements, and instruments	17,593,100	18,354,700	24,893,600	28,626,700
Electric goods and apparatus, other than machinery	4,897,000	5,780,600	11,834,900	11,590,500
Machinery	22,089,000	24,950,700	113,196,300	130,094,700
Wood manufactures, including furniture	9,577,300	9,815,900	5,907,900	6,353,900

Classes of articles.	Imports.		Exports of British and Irish produce.	
	1905.	1906.	1905.	1906.
Manufactures—Continued.				
Textile manufactures and yarns—				
Cotton	$38,544,100	$45,387,500	$447,771,500	$484,715,600
Wool	60,948,100	58,767,300	141,861,400	154,971,700
Other materials	93,651,400	97,724,200	64,261,600	72,898,300
Total of textiles	193,143,600	201,879,000	653,894,500	712,585,600
Ships, new			26,431,500	42,266,500
Apparel	19,285,800	18,420,700	29,302,200	33,180,300
Chemicals, drugs, dyes, etc	46,838,100	49,163,800	70,741,600	75,556,200
Leather, and manufactures of	53,716,500	62,024,100	25,020,100	35,968,300
Earthenware and glass	20,985,500	20,533,700	15,600,000	17,819,100
Paper	25,569,800	27,872,700	9,440,000	12,957,500
Miscellaneous	136,128,900	141,423,100	124,887,400	136,413,300
Total of all manufactures	697,850,900	758,240,900	1,309,444,700	1,487,241,700
Résumé:				
Food, drink, and tobacco	1,125,619,500	1,159,343,800	94,408,100	102,823,300
Raw materials	915,420,700	1,029,309,500	176,712,500	210,579,200
Manufactures	697,840,900	758,230,900	1,309,444,700	1,487,241,700
Unclassified, including parcel post	10,788,700	11,889,400	24,489,100	27,570,400
Grand total	2,749,669,800	2,958,773,600	1,605,054,400	1,828,214,600

REVIEW OF COMMERCE.

OFFICIAL TARIFF COMMISSION DISCUSSES THE INFLUENCES.

Consul-General Robert J. Wynne, of London, writes that the British Tariff Commission has issued a report analyzing the import and export trade of the United Kingdom in 1905 and 1906. The points are briefly summarized as follows:

(1) The import and export trade of the United Kingdom in 1906, as set out in the board of trade returns, amounted to $5,202,288,500, exclusive of bullion and specie.

(2) This increase in the import and export trade of 10 per cent in 1906 over 1905 compares with the following estimated percentage increases in the case of other countries, viz, Germany, 12½; United States, 11; France, 7.

(3) The rise in import prices in 1906 in the United Kingdom is estimated at 5.3 per cent, and in export prices 5.4 per cent. There are no available estimates of the changes in prices in other countries.

(4) Allowing for changes in prices, the increase of imports into the United Kingdom in 1906 over 1905, which according to the board of trade figures was 7.4 per cent in values, correspond with an increase of 2.3 per cent in quantities; the increase of 13.6 per cent in the values of exports corresponds with 8.1 per cent in quantities; and the increase of 10 per cent in total trade becomes less than 5 per cent in quantities.

(5) That is to say, of the increase of $171,500,000 in the value of imports for home consumption, $115,500,000 was due to increased prices and $56,000,000 to increased quantities. Similarly of the increase of $221,000,000 in the value of exports, $85,000,000 is accounted for by increased prices and $136,000,000 by increased quantities.

(6) Other influences affecting the significance of the 1906 totals are: (*a*) condition of the home trade; (*b*) state of trade in foreign countries; (*c*) change in British investments; and (*d*) exceptional circumstances.

The ratio of the home to the export trade differs for different trades, and may vary for the same trade over a period of years. More than 80 per cent of the output of the cotton industry is exported. In the other textile industries, although the proportion can not be calculated, the ratio is known to be absolutely different from that of the cotton industry, while in many of the less important branches of the iron and steel trade a considerable number of manufacturers make a return to the effect that they manufacture exclusively for the home market. High as has always been the percentage of the output of the cotton industry which is exported, that percentage has varied considerably in the last ten years. Similarly the ratio between the home and the export trade in the iron and steel industry has shown considerable

variations. But whatever may be the actual proportions between the total export trade and the total home trade of the United Kingdom there is no doubt that the position of the United Kingdom differs from that of other great industrial nations, such as Germany and the United States. In the case of both these countries the home trade is relatively much more important than it is in the case of the United Kingdom.

SCOTLAND.

GLASGOW'S INCREASING TRADE WITH THE UNITED STATES.

Consul R. W. Austin, reporting on the exports from Glasgow, Scotland, to the United States during the last three months of 1906, says in part:

The records in this consulate prove the volume of export business to be the largest of any corresponding quarter, not only in the number of shipments, but in the value of the articles. The story reveals the fact that the manufacturers of Scotland are, in the face of existing tariff duties and the cost of long-distance transportation, disposing of an immense amount of their products at the very doors of the American manufacturers. The difference in the price of raw material, cost and methods of living, the low and high scales of wages, account in a large measure for their ability to accomplish this result.

The returns place the total ninety days sales of cotton goods at $761,585, an increase over the corresponding sales for the same period of 1905 of $232,852. A comparison of the 61 different articles exported shows a gain in 42 articles amounting to $1,588,286, and a decrease in 19 articles amounting to $176,253, a net gain of $1,412,033. The exports of chemicals, cotton goods, pig iron, and wool foot up a total of $2,625,110, an increase of $1,735,121 over the same ninety days' period of the previous year. The important decreases were in machinery, $32,542; pictures, $22,782; union goods, $51,837; and jellies, jams, and preserves, $17,949.

The records disclose the fact that none of the goods shipped from Glasgow during the last quarter of 1906 were transported by a United States vessel. Not a single American ship carrying the flag of the United States entered or departed from Glasgow during October, November, or December; in fact, not a single American freight or passenger vessel entered or left the port during the year 1906.

The total exports to the United States during the three months amounted to $3,567,689 against $1,803,151 in 1905, the following constituting the principal articles: Ammonia, valued at $228,323, an increase of $208,702; pig iron, $857,618, an increase of $845,272; muslins, $161,611; wool, $517,881; whisky, $226,968; fertilizers, $169,236, an increase of $127,995; cotton goods, $761,585, an increase of $232,800; creosote oil, $58,258; herrings, $76,317; brass, $26,614; potash, $79,457, an increase of $49,197; hides and skins, $36,179, and paper and paper stock, $51,146.

OIL-SHALE MANIPULATION.

Consul Rufus Fleming, of Edinburgh, writes that shale distillation has been carried on in Scotland for more than half a century. He details the operations for the benefit of American inquirers as follows:

This industry is practically confined to the two counties of Linlithgow and Edinburgh. The output of oil shale in recent years has varied from 2,000,000 to 2,500,000 tons per annum. In 1904, the

latest year for which trustworthy statistics are obtainable, Scotland produced 2,331,885 tons. The marketable products of the industry were: Burning oil, 16,991,746 gallons; naphtha, 2,517,296 gallons; gas oil, 37,997 tons; lubricating oil, 39,476 tons; paraffin wax, 22,476 tons; sulphate of ammonia, 49,600 tons. The value of total products has not been officially stated, but it is estimated at somewhat above the figures for 1903, $8,759,700. In 1905 and 1906 there was, it is believed, a considerable advance in the output of shale and the quantities of the various products of manufacture. The mineral-oil industry has experienced many vicissitudes, due chiefly to foreign competition and to lack of proper organization. Within the last decade seven Scottish oil companies have gone out of business; but production has not diminished, the remaining six companies having extended their operations, improved and cheapened their processes, and established the industry on a fairly secure and profitable basis.

TECHNICAL INFORMATION.

Oil shales are found in several sections of the United States. Now and then I have received letters from persons or firms in America wishing to know the nature of Scottish oil shale, how it is worked, the methods of distillation, etc. Some years ago I procured for a mineral-oil company in a Western State blueprints of retorts used in oil-shale works here, from which the company's engineer constructed retorts that, I am told, have been in successful operation. To anyone interested in the discovery and utilization of oil shale a Government publication just issued by the geological survey office, London, will be of value. It treats of the "Oil shales of the Lothians," dealing with (1) the geology of the shale fields, (2) methods of working the seams, and (3) the chemistry of the oil-bearing mineral. An adequate summary of this detailed and technical report is impracticable, but a few facts of special importance to Americans who have been giving attention to oil shale may be stated.

The workable seams of oil shale in Scotland all occur in the calciferous sandstone series, which has two subdivisions. The upper, known as the oil-shale group, is over 3,000 feet in thickness, and contains, in its higher parts, beds of coal usually of inferior quality, and farther down, about six main seams of oil shale, interstratified with beds of sandstone, shale, fire clay, marl, and estuarine limestone. The lower group, in which no oil shales of economic importance have yet been found, consists of white sandstone, and shales, passing downward into gray, green, and red shales, clays, marls, and sandstones, with beds of argillaceous limestone or cement stone.

In regard to the physical characters of oil shale the report says that good shale can, as a rule, be distinguished by its brown streak, toughness, and resistance to disintegration by the weather. Ordinary carbonaceous shale is more or less brittle and often gritty, and when exposed to the air it cracks and crumbles into fragments which ultimately become clay or mud. Oil shale, on the other hand, resembles hard dark wood or dry leather, and its quality in the field is measured by the degree of facility with which it can be cut and curled up with the edge of a sharp knife. It is free from grittiness, and is often flexible as well as tough.

VARIABLE QUALITIES OF SHALE.

Miners draw a distinction between "plain" and "curly" shale, the former variety being flat and smooth, and the latter contorted or

"curled" and polished or glassy on the squeezed faces. The same seam may be partly plain and partly curly, and the curly beds are often richer in oil than the plain portions. It is said that shale is curly because it is rich, as the higher percentage of hydrocarbons in some beds may have rendered them more easily crumpled than the stronger but poorer bands alongside of them. In internal structure oil shale is minutely laminated, which is apparent in the "spent shale" after distillation, when it is thrown out in fragments composed of extremely thin sheets, like the leaves of a book or flakes in a piece of pastry.

In thickness the shale seams vary greatly. At certain localities they disappear and pass into ordinary carbonaceous shale, and at others they swell to 6, 10, or perhaps 15 feet in thickness. With reference to the yield of crude oil and sulphate of ammonia the experts have found a remarkable variation in the character of different seams and of the same shale in different places. It seems to be a general law that shales deteriorate with depth. The highest shale in the Scottish series is the richest in crude oil, supplying 130 gallons per ton, but only a few pounds of sulphate of ammonia, while the lowest shale yields only about 80 gallons per ton, but the sulphate of ammonia amounts to 60 pounds, or double the amount of ammonia of the higher shales.

IRELAND.

NEW ERA OPENING IN MANY INDUSTRIES.

Consul Harry S. Culver, of Cork, reports that Ireland is keenly alive to her industrial advantages and opportunities, some of the developments being thus summarized from his report:

The people of Ireland are unmistakably moving toward a greater industrial independence. The numerous and successful exhibitions lately held throughout the country, the proposed international exhibition at Dublin, the "made in Ireland" movement, and the national trade-mark, all point to the dawn of a new era in Ireland. Already a quickening of the spirit of enterprise is perceptible. The masses are more hopeful and more anxious for the common good of all.

On all sides there are signs of improvement. Agriculture and stock raising are being carried on far more carefully than ever, scientific methods being employed in both. This is particularly true of the butter industry, which, once beaten in the English markets, is back again, its success based on better butter, the result of better methods. Hand separators, technical instruction in the schools, and by itinerant teachers are effecting good results. The fisheries off the coasts of Cork and Kerry, followed by 6,300 men, are proving profitable.

DIRECT STEAMSHIPS WANTED.

One cause of complaint is the absence of ships to carry direct Ireland's imports and exports, particularly from and to the United States. Failure to establish and maintain a direct line of merchant steamers with some port in Ireland, preferably Cork, is the greatest drawback to American trade with Ireland. It is true that whole cargoes of grain direct from the United States are now landed at Cork; but all small, miscellaneous shipments must first go to Liverpool or London, and are there transshipped either by rail or packet steamer to this port, thus causing needless delay and expense, the rate of carriage from Liverpool or London either by rail or boat being extremely

high. It is claimed, on good authority, that the charges from Liverpool and London to Cork exceed the charges from New York to those ports. American exporters are seriously handicapped by reason of this double and sometimes triple handling and the double freight charges. Liverpool is the distributing port for Ireland, and all imports from the United States, except whole cargoes of lumber, grain, and slate, must first land there.

General products of the United States, manufactured and natural, are, therefore, not exploited in this open and inviting field as they should be, and as they would be were there direct communication with Irish ports. While the harbor at Queenstown is one of the finest in the world, where the largest vessels may find anchorage, the channel up the river Lee to Cork, a distance of 10 miles, will not accommodate ships of over 24 feet draft; but the channel is constantly kept at that depth and vessels may load and unload afloat at the deep-water quays. A short distance above Queenstown extensive repair docks are maintained where the largest boats may be repaired; while on Haulbowline Island, in the harbor proper, is a large naval repair station and dry dock.

The declared exports from Cork to the United States for the calendar year 1906, aggregated $121,987, the following being the principal items: Cotton crochet lace, $10,016; cured fish, $27,713; hides and skins, $71,652; magnesia, $4,812, and whisky, $3,980.

There was imported for the year ending July 31, 1906, into Cork wheat to the amount of 60,506 tons and 82,358 tons of corn. One of the largest dealers imported 6,593 tons of wheat from Australia, 8,575 tons from the American Pacific coast States, 6,722 tons from the River Plate, 8,233 tons from Canada, 2,439 tons from Black Sea ports; while of corn he bought 35,917 tons from the River Plate, 9,602 tons from the United States, and 2,300 tons from Black Sea ports. Coal imports during 1906 were 350,000 tons, principally from Wales.

ROAD MAINTENANCE.

WHAT ENGLAND PAYS TO KEEP UP FIRST-CLASS HIGHWAYS.

The following interesting facts as to the cost of main road maintenance in the county of Yorkshire, England, are contributed by Consul Walter C. Hamm, of Hull:

The roads were well constructed originally and are well cared for now. It is a rare sight to see a rutty or muddy country road in this neighborhood. Most all of them are macadamized, well drained, and kept in good repair. As a consequence one horse can draw a load which would require two or three horses over the usual country road in America. The following table gives the total expenditure for each year, the total length of roads in the district considered, and the average cost per mile for twelve years past. The pound sterling is estimated at $5.

Year.	Total cost.	Miles.	Cost per mile.	Year.	Total cost.	Miles.	Cost per mile.
1895	$734,270	1,122	$654.42	1901	$789,295	1,111	$710.44
1896	741,925	1,122	661.11	1902	798,950	1,107	717.20
1897	787,940	1,122	702.20	1903	796,990	1,104	721.91
1898	826,120	1,125	735.20	1904	839,160	1,094	767.05
1899	812,850	1,128	729.47	1905	879,320	1,094	803.76
1900	766,765	1,133	676.70	1906	910,750	1,094	832.50

As will be seen there is a constant tendency to increase in the cost of maintenance, but this increase is, in part, accounted for by the construction of footpaths and the placing of granite "setts" to protect the roads from injury by trolley lines. In view of the growing interest in good roads in America these figures ought to be of value.

MALTA.

EXTENT OF COTTON AND TOBACCO TRADE OF ISLAND.

In response to a letter from an American firm desiring information relative to importations of cotton, cotton fabrics, and leaf tobacco, Consul J. H. Grout, at Valletta, Malta, writes as follows:

Cotton is not imported into the Maltese islands as they raise sufficient for local requirements. There are no mills here, but the small quantity of cotton raised is worked into coarse cloths by the country people for their own use. Cotton fabrics in general are imported from England, Germany, France, Italy, and Austria. Business is now transacted principally direct with the local retailers through drummers or agents of manufacturers or merchants located in nearby countries. I do not believe that satisfactory results could be obtained by attempts to open up trade in this line by means of correspondence alone; but personal visits of representatives would, on the other hand, be doubtless crowned with success, provided that prices of goods laid down here compared favorably with those being paid and the grade of goods being equal. Credit of about three months and often more is allowed generally by European houses dealing with Maltese firms.

The leaf-tobacco trade has greatly decreased here during the past few years. Dark Kentucky and Virginia leaf is used for the manufacture of cigars. Also, a very dark, heavy, and long leaf is used for pipe smoking. Pressed tobacco, as used elsewhere for pipe smoking, is not in demand and would prove unsalable in this market. Very coarse cigars are made and smoked here, and consequently only a low-priced leaf would stand any show in this market. A few years ago quite a large business was done here in American leaf tobacco, there being many small concerns manufacturing cigars for export to countries bordering upon the Mediterranean.

SWITZERLAND.

MARKETS OF REPUBLIC.

LOCAL INDUSTRIES AND EXPORTS—USE OF FOREIGN GOODS.

Special Agent A. B. Butman, after an investigation of commercial and industrial affairs in Switzerland, makes a report showing the great manufacturing activity of the inhabitants; but the people also buy foreign manufactured goods in increasing quantities, and Swiss merchants express a desire to handle more American goods. Mr. Butman's report, which follows, explains the various phases of trade in that progressive country.

The principal manufactures of Switzerland are watches and clocks, textiles (cotton, linen, woolen, and silk), fertilizers, cheeses, condensed

milk, chocolate, chemical products, and carved woods. The making of Swiss watches is more or less done in the homes of the workers, although this is not so generally true as in former times, the work being subdivided and each worker engaged in the manufacture of a single piece of the mechanism. Wages in this industry are said to vary from 2 francs 50 centimes (50 cents) per day for the simpler parts, to 10 francs ($2) per day for adjusting or engraving. In value the exportation of Swiss watches and parts of for the year 1905 to the United States was $1,698,720; Germany, $5,837,280; United Kingdom, $3,130,080; Russia, $2,535,360; Austria-Hungary, $2,374,080; Italy, $1,520,640; France, $1,282,080.

The manufacture of jewelry is also carried on at Geneva. Other manufactures are artistic enamels, for which the city is renowned, and musical boxes and orchestrions. The automobile industry is an important one in the city, also that of motor cycles and motor coaches. Less important are the manufactures of physical laboratory instruments, diamond cutters' equipments, etc. The great industrial activities of Geneva are largely due to the motive power of the Rhone, this being utilized at present to the amount of 20,000 horsepower.

EXTENSIVE LINE OF MANUFACTURING.

Wood carving is carried on to some extent throughout the country, but more largely in the remote villages and mountain homes of the peasants. This includes animals, toys, caskets, flowers, forks, and spoons, etc. In the Bernese Oberland inlaid slabs for table tops from the marbles of the country are produced.

The chief centers of the silk industry are Basel and Zurich. In addition to the power looms in Zurich, there are also estimated to be 20,000 to 30,000 hand looms in operation in homes of the city and adjacent villages. The value of exportation of silk goods for the year 1905 to the following principal countries was: United States, $5,804,640; United Kingdom, $14,282,880; Germany, $6,905,280; France, $5,063,520; Austria-Hungary, $2,580,480; Italy, $617,280, and Russia, $123,360.

Other important industries of Zurich are its cotton mills, machine works, and iron foundries. It is estimated that about 25,000 persons are employed in cotton weaving and printing. The exportation of cotton and woolen goods from Switzerland for 1905 was unusally large. The United States purchased $11,927,040 of Swiss cotton goods and $107,520 of woolen goods; the United Kingdom, $5,926,560 and $1,367,200, respectively, of these two lines; Germany, $4,436,160 and $1,318,080; France, $1,943,040 and $206,400; Austria-Hungary, $1,332,000 and $133,440; Italy, $1,022,880 and $196,800; Russia, $374,480 and $104,640.

CONDENSED MILK AND CHOCOLATE—OTHER PRODUCTIONS.

The condensed milk industry is carried on in different portions of the country, principally in Canton Vaud and Zug. The value of exportation of Swiss condensed milk, together with chocolate, which are manufactured throughout the Republic in large quantities, for the year 1905 was as follows: To the United States, $5,760 of condensed milk and $698,400 of chocolate; to United Kingdom, $3,005,760 and $2,234,400, respectively, of these two lines; Germany, $35,040 and

$630,720; France, $74,880 and $626,880; Austria-Hungary, $1,440 and $169,920; Italy, $12,000 and $546,720; Russia, $31,680 and $264,000.

The total values of exportation for other principal Swiss manufactures were for 1905: Machinery, etc., $14,392,800; chemicals, $7,510,560; leather and shoes, $1,752,960. Switzerland finds the largest market for her manufactures in the United Kingdom, Germany, the United States, and France, following in the order mentioned. The total amount of Swiss exports to the United States was $24,134,473. [The United States Bureau of Statistics gives the imports from Switzerland in 1905 as $22,353,354 and for 1906 $24,568,407.]

The total export trade for the year 1905 amounted to $186,109,440, exceeding that of 1904 by $14,947,200, and was divided as follows: Raw materials, $20,798,400; natural products and foodstuffs, $3,104,160; manufactures, including food products, $162,206,880. These figures, showing as they do the very large per cent held by manufactured products in the total export trade of Switzerland, are conclusive proof that the entire country is a hive of industry.

The value of Swiss cheese exports for 1905 to the following countries was: United States, $1,425,600; United Kingdom, $145,440; Germany, $2,019,840; France, $2,392,640; Austria-Hungary, $673,440; Italy, $794,880; Russia, $203,040. The average annual production of wine is estimated to be about 40,000,000 gallons. About 1.6 per cent of the soil under cultivation in the country is devoted to grape culture, and the manufacture of wine is probably the oldest of all Swiss industries.

The total valuation of the import trade of Switzerland for the year 1905 was $264,931,200, exceeding that of 1904 by $26,837,760; which, added to the valuation of the export trade, shows the total of the Republic's foreign commerce for the year 1905 to have been $451,040,640. Imports were divided as follows: Raw materials, $91,923,360; natural products and foodstuffs, $78,963,840; manufactured goods, $94,044,000. The principal raw materials were, in their order of valuation—raw silk, coal, iron, precious metals, raw cotton, nonprecious metals, and raw wool; classified as natural products and foodstuffs—cereals, cattle (beef), wine, sugar, and sirup. Of those classified as manufactured goods, cotton goods ranked first to the value of $11,592,000, principally from the United Kingdom, with Germany a close second, the value of the combined importations from these two countries alone amounting to $9,977,280; woolen goods came next with a value of $9,615,840, of which Germany furnished $5,722,080; chemicals were imported to the value of $8,592,000; machinery and vehicles, $8,459,520; clothing (ready-made), $8,371,200; leather and leather goods, $7,203,360; ironware, $6,476,640; wooden goods, $5,799,360.

In all Swiss imports of manufactured goods, with the exception of the instances already mentioned, and in wooden goods, in which Austria-Hungary leads, and in that of silk goods, in which France is a close second, statistics show that Germany not only holds the leading place, but furnishes by far the larger quantities of the total importations.

PURCHASES FROM AMERICA.

The value of the total importations from the United States for the year 1905 was $10,986,403. The principal manufactured articles imported from the United States were agricultural machinery, valued

at $218,718; machine tools, $55,584; sewing machines, $51,299; machinery (other kinds), $122,692; carriages and vehicles, $26,749; boots and shoes, $25,846; agricultural implements, $12,089; and bicycles, $2,007.

By far the larger portions of American exports to Switzerland are confined to raw materials and foodstuffs. I am convinced, however, after as careful a study of the trade conditions of the country as it was possible to make, that its markets for various manufactures of the United States are worth more attention. In interviews with the heads of many importing houses, wholesale dealers, and retailers in the principal cities and towns throughout the country, I have heard almost without exception nothing but commendatory words for American manufactures. There seems to exist absolutely no prejudice against American products; they are well liked by the consumers, and I am sure that, did American manufacturers care sufficiently for this market thoroughly to introduce their goods, advertising and pushing them, faithfully following up the progress of trade, they might easily hold a far larger share in Switzerland imports than is now the case. The commercial development of the country has been wonderfully progressive, especially during the past few years, the large annual number of visitors—estimated at 3,000,000—from the outside world have brought with them advanced ideas, which the native population are quick to assimilate.

At the present time the Swiss—that is, at least those living in the cities and larger towns where imported manufactures are largely sold—are an up-to-date people, desiring articles of the latest fashion and design. Regarding the large proportion of Switzerland's import trade, which is held by Germany, it may be interesting to note the following facts:

GERMANY'S ADVANTAGE.

(1) The proximity of the country enabling German manufacturers to profit by low freight rates and quick deliveries. A large number of commercial travelers are sent by German firms, Swiss licenses having been issued for these representatives to the number of 4,838 during the year 1905. Only one license was issued for the United States.

(2) The credit system employed (thirty days with 2 and 3 per cent discount, three months net), which time is reckoned after goods have been received by the consignee. In fact, it is said that in many instances the German exporter will grant whatever time may be desired for payment by his customer, and it would seem that the exporter leaves no stone unturned which may enable him to get possession of and keep the Swiss markets. Many American manufacturers hold an unique position throughout Switzerland. The German, knowing this, and being a good imitator, fashions a like article and presents the same to a Swiss dealer—honestly, for he acknowledges that the article is an imitation—something after this manner. "Do you see that article, is that not like the American article, and only little more than half the price?"

As an example of German imitation and its corresponding price, my informant of the salesman's method just cited exhibited an American manufactured desk which he sells for $50. One of German make in

imitation of the American can be sold for $30 or $35. "But," remarked the dealer, "the Swiss people are learning that the best is generally the cheapest in the long run." American manufacturers, if they would canvass the country with an assiduity like that of the German manufacturer, would obtain a satisfactory field for their products. Of this I feel confident.

AMERICAN PRODUCTS ON SALE.

American machine tools are held in highest esteem, being considered superior to like productions of any other country. American agricultural implements, though superior in finish, are, it is claimed, in many instances too lightly constructed for satisfactory use in Switzerland. The German and English implements, being more heavily built, are better adapted to the demands of the trade. I am told that in the construction of agricultural implements of domestic (Swiss) manufacture, and also in those of German manufacture, American designs are carried out with the substitution of cast-steel parts for the cast-iron parts of an American implement.

In general—of hardware and kitchen utensils, saws, hammers, planes, screw-drivers, screw eyes, etc., oil stoves, gas stoves, carpet sweepers, wringers, churns, and all labor-saving devices—those of American manufacture are preferred, and all things being equal, would hold the market in spite of strong competition if properly exploited. I am assured of this fact by dealers in the various lines, many of whom, though already handling American goods to some extent, desire to do so more generally and to come in closer touch with American manufacturers. The name "American" carries weight with the Swiss consumer. In Geneva, especially, a splendid market is afforded for a very large variety of products of the United States.

American dried fruits, such as apricots, apples, prunes, and peaches, are selling well. In some instances these are purchased through London agencies; in others, direct from the United States. Several brands of American whiskies are on sale in the various cities, which if more widely advertised would show larger returns. Breakfast foods, such as Quaker oats, shredded wheat, cream of wheat, force, and grape-nuts, have a fair sale; mostly in tourist centers.

MEATS AND LEATHER GOODS.

American lard, hams, and bacon, are each in good demand, while sales of canned meats are at present restricted, owing partially, at least, to the serial publication of "The Jungle" in European papers.

Switzerland imported from the United States during the year 1905 leather and shoes to the amount of $1,439,401, the items being as follows: Sole leather, $508,883; harness, strap, etc., $3,566; other kinds, $861,899; prepared parts, $5,558; boots and shoes, $25,846; and miscellaneous, $33,649. In boots and shoes the statistics show the following values of importations from other countries: Germany, $630,240; France, $100,800; Austria-Hungary, $96,000; United Kingdom, $17,280. Genuine American-made shoes are on sale in all important Swiss towns, and are constantly increasing in favor. The larger stocks carried by Swiss dealers are of the better grade shoe, selling usually for 22 francs ($4.40). This market affords capacity for a much larger development. If an earnest effort were made by American shoe manu-

facturers to further introduce and push sales of the same, there is no reason why a splendid increase of trade should not result.

I should judge that of Swiss cities the town of Geneva afforded the best situation for the establishment of an exclusively American shoe store. Certain it is that at least in one of the large tourist centers such a store ought to do a satisfactory business, both with the native population, who see and admire the foot wear worn by the visitors, and also with the tourists. Likewise, if the shoe manufacturers of the United States were represented by commercial travelers, introducing the product in all communities, a good business ought to result throughout the country.

LOWEST TARIFF RATES—BEEF AND CATTLE WANTED.

Custom duties are levied on the gross weight of all importations, which means weight of the article and its packing, and this at the tariff rate charged for the contents of the package. The United States enjoys the most favored nation clause for its products entering Switzerland.

Without doubt American exports might be increased along all the lines indicated. I am also informed that there is an increasing demand for American typewriters, a good market for pressed steel pulleys and hangers, and tool steel. Switzerland, with its many lakes, ought to afford a good market for American motor boats and motors for the same. Barrel staves are also required.

The secretary of the chamber of commerce at Basel, Mr. J. Geering, informs me that Switzerland affords an annual market for 50,000 head of cattle for slaughter. In an interview with the largest importer of cattle in the country, the following facts were learned: The supply of cattle (beef) was formerly obtained from Austria-Hungary and Italy; at present it is largely secured from France; while 2,000 head were imported in 1905 from Canada. The difficulty with this trade would be that of transportation. The gentleman alluded to stated that American cattle, if destined for Switzerland, may not at present be landed at either French or German ports; this restriction, however, does not apply to the Italian port of Genoa.

It is noted with pleasure that in Switzerland no complaints regarding the packing of American goods have been made to the writer. The following suggestions have been made, however, toward the further extension of American trade, and which seem worthy the attention and consideration of American manufacturers: A more prompt delivery of goods ordered; commercial travelers representing American firms, and able to speak both the French and German languages, carrying lines of samples for exhibition to local dealers; compliance with the credit system of the country; the use of the metric system in weights and measures employed in quotations, with accompanying prices in francs; and the advisability of American exporters establishing a combined warehouse at Basel, the nearest city to Antwerp, which is the most desirable port of entrance for American goods destined for Swiss markets.

Statistics in this report in the cases of trade by countries are from English figures computed in round numbers at the rate of $4.80 per pound; other statistics are from American consular sources.

ITALY.

MILAN TRADE REVIEW.

LARGER EXPORTS TO UNITED STATES, PHILIPPINES, AND SOUTH AMERICA.

Consul James E. Dunning writes that in the calendar year 1906 the Milan consular district maintained its position as the commercial heart of the Italian peninsula and as one of the great international market places. Mr. Dunning's review of Milan's foreign trade for last year follows:

The crops have been abundant; manufacturers have expanded their capacity and output; money has been plentiful and cheap; exports have exceeded imports, and trade is markedly outgrowing its old environment. Since 1903 the volume of shipments from Milan to the United States has risen from about $850,000 to about $3,000,000, not including the shipments of raw silk. The steps in this progress are shown in the following record for the past four years of Milan's exports to America:

	1903.	1904.	1905.	1906.
Raw silk	$10,644,006	$13,021,552	$14,111,298	$13,366,836
Miscellaneous	848,560	1,736,362	2,002,939	2,909,494
Total	11,492,566	14,757,914	16,114,237	16,276,330

It is by the miscellaneous shipments to America that the commercial importance of Milan and its surroundings must be judged. The prominent ones, which amounted to $100,000 and upward, are given below, including the shipments to the Philippine Islands:

Bitters and liquors	$316,000	Pure silk manufactures	$240,000
Cheese	135,000	Silk and cotton	285,000
Cotton waste	120,000	Silk waste	200,000
Machine embroidery	100,000	Schappe	100,000
Kid gloves	405,000	Philippine Islands	160,000
Drawn horsehair	220,000		

With the exception of horsehair all these classifications show important and some of them significant increases. Shipments of horsehair from the Milan district in the past few years have suffered a heavy falling off. It seems that the American demand has been severely affected by the use of textile wastes and other vegetable or manufactured fibers as a substitute for animal hair. In kid gloves the increase is very marked, and in the last part of the year 1906 Milan shipments, to meet the demand in the depleted American market, were heavy. Cheese shipments are constantly growing in volume and frequency. There are many other articles now in the minor classes which are approaching the $100,000 group. Among these are shipments of handmade lace, junk-jute bagging from cotton bales, automobiles and their equipment, preserved vegetables, and cotton textiles. Nearly all are likely to reach the $100,000 level during 1907. In several cases articles were denied entrance to the star group by the discovery, some months since, of a long perpetuated error in reckon-

ing which had obtained in the past and by the immediate correction of which the grand total for 1906 was made to suffer by some hundreds of thousands of dollars, more or less.

RAW SILK.

The Milan shipments to the United States of raw silk, cleaned, wound, reeled, and skeined, and made available for the silk textile mills, depend on the cocoon crop on the one side and the American mill demand on the other. An interesting result of the settlement of the questions discussed at the Algeciras conference was the general stiffening of the silk market. This was still further sustained by the report that the Chinese and Japanese crop of 1905–6 would be 4,500,000 pounds short. Midsummer saw a weakness in the American demand, but by mid-October the United States was once more an excellent customer, which, with the domestic demand in Japan as an influence reducing the oriental output, gave the Italian market in the last months of the year a most satisfactory rise. Thus the year closed with the surplus stocks greatly reduced and with prices at about the level at which the year was opened. The Milan trade looks forward on 1907 in an expectant and hopeful spirit. The United States called for a greater number of importations than was expected and has given to the Milan market one of the best seasons in its history.

The unusual demand for silk waste during the year raised the price considerably, afforded better conditions in the spinning mills, and led indirectly to a higher wage scale which must soon be granted.

PROPOSED IMPROVEMENTS.

The year 1907 will see organized in Italy a special royal commission which will conduct a thorough study of the conditions surrounding silk culture and manufacture. In suggesting the appointment of such a commission the Government has committed itself in favor of an association which will take direction, on a cooperative basis, of the market for eggs and cocoons; of special means for extending silk-worm culture in the southern provinces, Sardinia, Sicily, and Italy's African colonies; of the adoption of the latest types of machine processes for reeling and winding the raw product; of the organization of a bank particularly adapted to handling the operations of the trade; and of the establishment of a raw-silk exchange or general market in Milan, with an international price list and the other usual features, as a means of creating a greater degree of cooperation among units which now operate very much at variance with each other and to the general disadvantage. This move will open the way further for American manufacturers of new machinery suited to the industry. Of the 2,000 factories now devoted to the silk industry in Italy but few additions will be made during 1907, the activity going to the improvement of existing conditions.

BITTERS AND LIQUORS.

In the Milan export of bitters and liquors to the United States the best previous twelve-months record had been $268,000 and the second best $165,000—1906 being the banner year in this as in many other Milanese lines. The principal exporter here of bitters and liquors to the United States shipped in 1903 15,937 cases; in 1904, 22,400; in 1905, 27,090; and in 1906, 35,910; and this is but one exporter among several. The trade has been carefully built up in every State of the

Union by means of special representatives and American agents. Most of the stock goes into the composition of liquors, drugs, and patent medicines.

Further, immense quantities of Milan vermouth are evidently demanded by Italian residents of New York and other large American cities, it being the characteristic native drink of the peninsula at all seasons of the year. A very important item of foreign traffic is often created by European emigrants, who carry their national tastes wherever they go. The Milan bitters trade looks for a greater demand in the United States during 1907 than ever before, "both on account of the superiority of our output," as one shipper says, "and because its use is rapidly entering into the habits of the American people."

TRADE WITH THE PHILIPPINES.

The Continent of Europe is finding an exceptional market in the island possessions of the United States, and particularly in the Philippines. During 1906 this consulate certified to invoices covering Italian goods going to the Philippines worth $160,000, as against $54,000 for the year 1905. Cotton goods continue to hold the high line for this trade; but there is a very long list of other articles, evidently trial shipments or initial orders, characteristic of the opening of a campaign by conservative merchants both here and in the islands.

The Milan trade with the Philippines is not distinctively Italian; it is European. It is entirely in the hands of one firm, with headquarters in Milan and Manila. This firm manufactures nothing, but acts as a trading company between the manufacturers of a great variety of articles on the one side and the retailers in Manila and other cities of the archipelago on the other.

The trade has been worked up in the methods most approved by active exporters the world over. Experienced men, not employees, but actual members of the firm, have been sent to the islands to thoroughly canvass the field. They have appointed agents in outlying localities, have established stores in Manila, have laid out their banking arrangements, and studied the transportation inlets. They have made personal connections with the skippers of coastwise steamers and sailing vessels and have granted them commissions on all orders secured from small places up and down the archipelago. They have selected traveling men on the ground rather than from among their office staff at home. These sent back reports on the classes of goods required by the Filipinos, and the terms on which they will purchase them. They have paid special attention to the peculiar wants of the native peoples, and have gone deeply into the methods previously employed by American and other firms already exporting to the islands. In the meantime the Milan house has been industriously canvassing the European manufacturing field.

CONTINENTAL HEADQUARTERS AT MILAN.

Milan is used as the continental headquarters simply because of its accessibility, the number of manufactured articles which can be bought here for export, and its unexampled situation and equipment as a general clearing house of trade. Such articles as the Italian market do not supply are brought to Milan from Germany and Austria and are here prepared for shipment to Manila or Iloilo. In this way during 1906 more than $80,000 worth of cotton textiles were sold at

Manila through the Milan consulate. Felt hats constitute another very strong line, the stock being low grade and bought for export from the great hat-making center at Monza, 9 miles north of Milan. Cotton underclothing, parasols, perfumery, and sterilized milk are leaders in the long line, and all of them are on the increase. The marked advance in shipments during the final quarter of 1906 indicates a wide development of this trade in 1907.

The sterilized milk is shipped without chemical preservative and is said to gain some advantage in that way. The exporters have industriously advertised the opinion that it reaches the consumer in a form more attractive to the eye than does the American condensed milk, containing preservatives which sometimes, according to the German report, discolor it during a long period of storage. The perfumery is mostly Milan made, with special reference to Filipino fancy, while the umbrellas and certain of the textiles are also particularly colored and figured to suit the Philippine trade. Silk shawls, which are one of the strong minor lines of export from Milan to New York, are increasing in demand in Manila. They are the small tussah article, much worn to church by Italian and other women as a head or shoulder covering.

SOUTH AMERICAN TRADE—DIRECT STEAMSHIP LINES.

While the amount of trade between Milan and South American ports can not be definitely stated, there is no doubt of its magnitude. Cotton and silk textiles lead. The trade is due to reports of one man who went out some years ago to make a study of probable outlets for the then projected cotton-mill system which has since grown up in Lombardy. It was helped by the large numbers of Italian emigrants settled in South America, an excellent illustration of the fact that traffic follows in the footsteps of the travelers of this class. Upon the demand created by them was erected the immense volume of business now enjoyed.

Trained traveling men were put into the field; these were followed by men who could speak the language of the people to whom they were sent. Before going these agents received full instructions based on the careful plans of campaign drawn by their superiors. The plan was definite. Banking arrangements were looked to with extreme care. Transportation facilities were studied, and then, as the crowning effort in the entire scheme, transportation lines were created in order that the trade might be carried in Italian bottoms and controlled by Italian hands.

Too much emphasis can not be put on this successful establishment of direct and perfectly equipped steamship lines between Italian home ports and South America. Every such steamer became a center of trade influence. South American merchants can come to Italy direct in large, fast, and elegantly appointed ships, and Italian traveling men can go out direct in the same ships. The constant and close interchange which these systems have created are a tremendous force in commerce. In this part of Italy to term oneself an "American" is to be considered as a resident of Brazil or Chile or Argentina, but never of the United States.

RELATIONS WITH SOUTH AMERICA.

Every South American country has a well-equipped consulate in Milan, all of them of more ample accommodations and liberal allow-

ances than are afforded by some other great nations to their representatives here, while several of the incumbents are consuls-general. The Chilean consulate is one of the best separate residences in the city. South American flags are seen in the best streets.

Everything which would lend to the susceptible Italian mind the impression of friendliness, importance, and high respect has been done as a means of promoting closer relations between Italy and South America. As a result this trade is growing, the increase in the sale of Italian cotton goods alone being noteworthy. In other lines there is collateral gain. Better steamers are being put on the routes, better men are being sent out, more attention is being paid to the peculiar wants of the markets and to arrangements by which banking and credits can be made easier for the South Americans. An effort is being made to make the South American business man feel that he is dealing with his own people when he deals with Italy. Very much is made of the personal equation.

IMPROVING AMERICAN SALES METHODS.

If American exporters desire to get a hold here, or those who are here now to get a better one, they should pay attention even to the minutest business details. They should give up trying to accomplish anything through catalogues excepting as the merest preliminary move in a long campaign. They should be easier in their terms. They should send men directly into the field, and the men should be specially trained and selected for the work. This is the method by which their competitors have built up trade here, and it is possible that the United States might gain something valuable by imitating their example. There is a more or less general feeling that the American exporter does not at present care whether he gets Italian trade or not. The exporter who comes here will find a superior people, a people confident in themselves, and full of pride in the fruits of their own success. Such a market can be advantageously cultivated only by the most active application of a business man's best efforts.

LAWS AFFECTING TRADE.

Every American exporter interested in the Italian market should remember that since the writing of the last previous annual report of the Milan consulate the Court of Cassation sitting at Turin has ruled that foreign corporations entering litigation in Italy need not acquire a formal status under the prohibitive Italian law of corporation taxes. This decision is the result of the effort of the Mergenthaler Linotype Company's English house to get itself before the tribunals of the Kingdom in a certain suit at law.

Prior to this ruling all foreign corporations were forced, before being given standing in the courts, to file their articles of association and similar documents, and to submit to a taxation of about 2 per cent on the capital stock of the home company. This condition caused many firms to remain out of Italy altogether, on account of the impossibility of following any ordinary delinquent debtor across a boundary so marked. By the ruling in the Linotype Case all conditions are removed, excepting that of the competency of the attorneys to practice before such courts as are qualified to try the cases.

Foreign corporations establishing direct branch houses in Italy continue to be held subject to the Italian tax of about 2 per cent on

their total home capital stock, but this is evaded by the organization of ostensibly separate companies under Italian management but bound by contract to sell only the company's goods at stated scales of prices.

LEADING MANUFACTURES.

TENDENCIES IN THE MILAN DISTRICT—IMPORTED GOODS.

Consul Dunning also describes the manufacturing life and products of that district of Northern Italy and the possible market there for foreign manufactures:

Included in Milan manufactures are large works of various character in neighboring cities of from 50,000 to 100,000 inhabitants each. Como is a noted silk center. Busto Arsizio is famous for its cotton textiles. In Milan and these adjacent cities manufacturers are generally expanding their capacity. In the automobile-building trade alone many Milan factories are being doubled. There is a tendency to manufacture for themselves, hence all the Milan factories are producing not only in larger quantities, but in better qualities. While it remains true that American goods have a certain "go" in this market, because of inherent quality, the imitative and dexterous Italian quickly catches the ideas thus brought to his notice and applies them in his own business. Hence an interesting feature of the retail trade of the Milan district, and particularly that portion of it which is in the range of American manufacturers of sundry goods, is the greater number of Italian manufactures offered for sale. Ambitious American exporters may still expect to gain something from the fact that they are afar off and that Europeans like foreign goods. The Italian manufacturer understands this and takes advantage of it.

OUTLOOK FOR 1907.

In 1907 American exporters will find the Italians among their most active competitors in this field. The day has passed when Italy was a convenient market for last season's overstock. Her exports, the products of her own factories and her farms, now equal or exceed her imports. American manufacturers should not try to foist upon the Italian market inferior goods which are not wanted at home. Doing so has been the means of ruining what prospects ever existed of an American motor-car market in Milan. The Italian buyer wants quality. In his mind there is a vast difference between low price and cheap stock.

The outlook for 1907 is distinctly favorable. The manufacturers are at present a debtor class, having easily secured large loans with which to finance expansions. Banking conditions are easy. There is an amount of enthusiasm over home industry sufficient to render the creditor liberal with the debtor who wants to put more money into a growing business.

The Italian shoe factories will always be heavy competitors of any American house attempting to enter here; but the difficulty with the Italian shoe goes further back than factory methods, and is to be found in a great measure in the improper treatment of the leather.

PROGRESS IN MANUFACTURES.

Italian factory interests in other lines are making a careful and gradually productive effort to supply the peninsula with plumbing fix-

tures, steam-heating apparatus, fire extinguishers, automobile fittings, leather goods of all descriptions, building material, furniture, electrical machinery, and steam-laundry equipment. Some of these lines are being supplied in the Milan district so rapidly and so well that there is no encouraging prospect for foreign interference with what amounts to a domestic monopoly. American leather goods, automobile fittings, furniture, and electrical equipment have no great opening.

Office furniture is in demand, particularly in the city of Milan, and the German and Austrian makers are busily engaged in meeting it. So far American manufacturers of these goods have failed to get a hold because they insisted on cash payments and the placing of large initial orders. On that basis they will always find the field closed to them. American typewriters have the lead and are being sold in increasing numbers. The "visible" machines are preferred. There is a good demand for special, wide, typewriter carriages to be used on book-work and accounts. Office sundries might be improved upon, particularly lead pencils, pens, and blotting papers.

Steam-heating apparatus is made in Milan, where this comfort is now in vogue, but the American opportunity is also being cultivated and to uncommonly good purpose. There is, however, no further opening in this line, nor is there likely to be. There are no cash registers in the district excepting the American machines, nor room for any others, this trade having been captured by the use of the most approved export methods with Italians in charge of the local field work.

ELEVATORS, TELEPHONES, AND MACHINE TOOLS.

American elevators have no inviting opening, since every elevator in the district is Milan made and entirely automatic. The American elevator of higher cost and requiring the services of an operator would not be favored. Most Milan elevators, of which there are several thousand, are driven by electric motors, and are automatically operated by electrical stops, with the usual safety devices.

Telephone equipment and supplies are generally German. There are 10,000 telephones in Milan alone, and the number is rapidly increasing. There is no complaint on the part of the telephone companies, and the German way of fixing terms is exceedingly well suited to the Italian market.

The demand for American machine tools to be used in equipping Milan factories was never so marked, nor were sales ever so heavy. This is one of the lines on which American goods have stood squarely on their quality without regard to competition. After making tests of everything else in the market the manufacturers of the district have gone to the United States for their machine tools, because, while they cost more at first, they effect a noteworthy eventual saving. This is due to the character of their work and to their comparatively low repair charges. The field here was never better, and it will go on improving. Milan is the best Italian market for these goods.

There is no demand for American automobiles. The Milan makers are supplying the call for first-rate machines, and are preparing to issue low-priced cars in response to a slight demand, which is likely to remain at that insignificant pitch for many years.

COTTON TEXTILES.

Milan has come to be one of the great cotton-textile markets of the world. During 1906 Milan sent to the United States cotton textiles worth about $45,000; and cotton waste worth nearly $120,000. To the Philippine Islands it sent $100,000 worth of textiles. The records show that whereas the cotton fabric sales to the United States in 1906 were $45,000 they were less than $3,000 in 1905, nothing in 1904 and 1903, and one sale was recorded of about $15,000 in 1902. The Philippine trade in this line did not exist until 1905.

The Italian spinners are confined, for climatic reasons, to threads lower in number than 80s and 110s. In finer threads, the English mills continue to have a good lead. Still, considering the immense amount of fabrics woven from threads coarser than these, it can not be said that the market of Italian spinners is greatly narrowed. Twenty-five years ago Italy was one of England's best customers; now she is one of her strongest competitors everywhere. It is the intention of the Milan mills to make Italian cotton textiles second only to Italian raw silk in the scale of exports.

The center of the cotton-textile trade is a few miles north of Milan, at Busto and Gallarate, where there are probably 150,000 looms exclusive of hand looms. If they produce from 25 to 30 yards daily, a fairly close estimate on the total annual output would be more than a billion yards annually. About 300,000 persons are at work on about 5,000,000 spindles. These draw their raw material from a total importation of 700,000 bales of cotton, of which 500,000 come from America, 100,000 from India, and 30,000 from Egypt. Nearly all the machinery is foreign built, a great deal of it English; but the Italians are preparing to build their own looms, several important works having recently been established with that end in view. American machine makers might give serious thought to this phase of the subject, in view of the certain expansion of the Italian textile trade within the next few years.

FOREIGN FIELDS OF TRADE.

Turkey, Roumania, Bulgaria, Egypt, South America, India, and the Phillipines are the principal foreign outlets for the trade. Milan is one of the principal selling points in Europe, shipments being handled here for all quarters and in many cases for stock outside the Italian field. There is, in fact, a marked tendency to center the entire cotton brokerage of southern Europe in the Milan exchange. The South American textile trade was created by the efforts of a single Milan merchant who visited that field twenty-five years ago and made a study of it prior to the beginning of Italy's effort as a strong cotton manufacturing factor. It was largely on his report that Milan capital was secured to open the home end of the trade; and the intelligent methods which he advised at that time have since then been applied to many other lines.

It is interesting to note here that out of a total exportation of cotton textiles from the district for the first nine months of 1906, amounting to 202,500 quintals (quintal 220½ pounds), about 90,000 quintals went into South America alone, a gain of 20,000 quintals over the same period of nine months in 1905. Egypt was the next best buyer and Turkey next. The increase in money value of imports of cotton, both raw and thread, in the nine months of 1906, over the same period in 1905,

was $3,000,000, the total value of such imports for the period being $37,275,000. The total money value of exports of cotton textiles in the first nine months of 1906 was $15,750,000, a gain over 1905 of $2,280,000. This, and the amount of continental cotton trading done here, for sales throughout the world, constitutes Milan's claim to be the great cotton goods market of southern Europe.

HANDMADE LACES.

Italian handmade laces are manufactured at Cantu, a few miles north of Milan. Though Venice lace remains the finest Italian product in this class, much of the stock sold there as genuine Venice lace is in reality made at Cantu, which sells immense consignments to the important traders on the Adriatic. The genuine Venetian lace, which requires from five to ten times the amount of labor and a much finer grade of linen yarn, can not be made in quantities sufficient to supply the market either at home or abroad; hence, the "fancy" lace output of the Milan district is known as Point Venice, and is made up in the regular Venetian pattern.

There are many other grades of Cantu lace, of which increasing shipments are made, both to the United States and Canada. The trade is growing rapidly, and seems destined to attain large proportions. Nearly all the Italian lace bought in the American shops comes from Cantu, where about 7,000 persons are engaged in its production. In the year 1906 more than twice as many meters of this stock were shipped to America than for any previous twelve months. Italy itself is a good buyer of the inferior grades of lace, consuming about $250,000 worth annually. Nearly 7,000,000 pounds of bleached linen yarn were imported into Italy during 1905 to be used in the manufacture of laces of various kinds.

NAPLES IS PROGRESSIVE.

Consul A. H. Byington reports that 13 lines of steamships now ply between Naples and New York. Naples is building a magnificent pier, which the port authorities expect to have ready in March.

A law was passed in 1904, under which ground and motive power are granted almost free and exemption from duties and taxes is allowed for ten years to manufacturers who will establish new industries or enlarge existing ones at Naples. This has begun to attract capital from the northern Italian cities. Over 100 acres have been already allotted to firms for the building of manufacturing plants.

The emigration from this port to the United States continues to increase steadily. For the year from July 1, 1905, to July 6, 1906, there were embarked at Naples 221,208 emigrants, an increase of 70,433 over the preceding year. However, it must be remembered that in this number are included those who returned to Italy for a visit only, and who sailed for America the second time.

The exports from Naples to the United States are constantly increasing. In 1904 they were $4,015,431, in 1905, $4,207,391; the imports from the United States show a greater increase—or from $3,378,772 in 1904 to $3,930,011 in 1905.

IMPORTS OF STARCH, TOBACCO, AND COTTON.

Consul Nash writes that the starch sold in Venice ranges in price between $14.28 and $17.37 per 220 pounds. The duties per 220 pounds

are: In boxes, $2.90; common, in bulk, $2.32; for paper factories, $1.16; all other grades, $1.54. The market for glucose is more restricted. The high duty of $17.37 per 220 pounds for first grade, $13.51 for second, and $9.65 for the liquid makes competition difficult, though not impossible. The duties on dextrine and grape sugar are, respectively, $1.54 and $16.98 per 220 pounds. Prices, when quoted, should read c. i. f. Venice, and the usual European credits should be offered.

Cornstarch is unknown in that market. [Names of dealers in starch and glucose are on file in the Bureau of Manufactures.]

Concerning tobacco, Consul Nash says that the manufacture thereof in any form in Italy is a Government monopoly. Communications concerning sales of raw tobacco should be addressed, "Al Ministero delle Finanze, Direzione Generale delle Privative, Roma, Italia."

About 40 per cent of all the cotton that came into Venice in 1905 was from the United States, the rest from India, Egypt, and Turkey. [Names of raw-cotton importers are on file in the Bureau of Manufactures.]

RUSSIA.

FOREIGN TRADE.

GERMANS ARE NOW GETTING THE LARGER SHARE.

The British consul at Moscow, in a recent report dealing with the trade of Russia, says:

> The United Kingdom and Germany, between them, account for more than half of the total Russian imports, and I have paid special attention to the results of German competition.

He begins his statistical matter by giving the following statement covering the imports and exports of Russia for the five years ended with 1905, to show that notwithstanding the universally written up "bad year" of 1905, Russian foreign trade held its own remarkably well.

Year.	Imports.	Exports.	Excess of exports.
1901	$274,466,200	$375,845,600	$101,379,400
1902	272,447,900	425,091,100	152,643,200
1903	310,346,500	489,081,100	178,734,600
1904	300,578,200	492,104,100	191,525,900
1905	269,349,100	511,224,200	241,875,100

The imports in 1905 decreased $31,429,100 as compared with 1904, yet they were nearly equal to those of 1901 and 1902, while the exports for 1905 were very much the largest of any of the five years, which go to show that, regardless of home or foreign disturbances, Russian trade practically kept on the even tenor of its way. During the seven years ended with 1903 (no later figures being available) the imports from Germany more than doubled, while the imports from the United Kingdom during the seven years increased only about 8 per cent. In that portion of his report dealing with agricultural machinery the consul says:

> The conditions of agricultural machinery in 1905 were just the same as for 1904, as the Siberian Railway was virtually nonexistent for commercial purposes. When once the line is clear, large orders may be expected, as there is plenty of money in Siberia waiting to be invested in machinery, etc.

POINTS ABOUT TRADE IN GENERAL.

The following abstracts, taken from the consul's cursory review of imports, should be of particular interest to American manufacturers:

Electric appliances.—There is a steadily increasing demand for electrical appliances. It is stated that a German syndicate has concessions from the Ministry of Finance, and that its representatives are traveling about Russia and inspecting various towns with a view to installing light plants and starting electric trams. Over three-fourths of all the electric plants in Russia came from Germany.

Bicycles.—Bicycle dealers are doing well. In 1903, the latest year for which statistics are available, 9,246 bicycles were imported, of which 7,035 were German, 1,031 British, and 586 American.

Machine tools.—There is a considerable market for machine tools in Russia. They would seem to be nearly all imported from Germany, though a fair show of British tools is observable here in the shops of Moscow. Tools supplied for the Russian market should be somewhat stouter than what is usually turned out for the home market. The imports of machine tools in 1904 amounted to $1,900,000, of which the greater part were German, those from the United Kingdom amounting to only about $300,000.

Chemicals.—The import of chemicals in 1904 amounted to $6,700,000, of which Germany supplied $4,000,000 and the United Kingdom somewhat over $800,000.

Fruits.—At the request of British fruiterers, the consul reports that the imports of fruits may be estimated at about $10,000,000, coming from the following countries in their order of value: Persia, Italy, Turkey, Germany, Austria-Hungary, United Kingdom, etc. There seems to be a demand, which is likely to increase, for canned and dried fruits, and as there is not much done in these lines in Russia, there should be an opening for canned and dried fruits from Canada and other British territories.

TRADE METHODS.

In both imports and exports Germany largely leads even the United Kingdom, which at one time dominated Russian markets. As an illustration of trade methods the consul says:

> Many firms that are quite reliable and that are doing a good business can not pay cash till part, at all events, of the consignment received is sold, and, more important still, is paid for, for often virtually the whole of the capital of the firm is represented by their goods. If such firms can not get credit from British firms, they have to go elsewhere. Another point is the danger of refusing small initial orders. I am assured that German firms very seldom commit this mistake, as they hope for and generally obtain subsequent and more substantial orders. An illustration: A Russian firm sent inquiries to a firm in Germany and to a British firm making also an offer. The German firm promptly wired back, "Goods dispatched." Some few days after came a letter from the British firm, in English, asking for further particulars. Needless to say the German firm secured the order, which has been repeated and enlarged upon.

While, of course, a traveler or dealer who understands the language of the country is better equipped for business than all others, the British consul says that there are very few business firms in Russia who do not understand German or French, or at least who have not in their employ persons who speak these languages.

AGRICULTURAL IMPLEMENTS.

The consul gives the following statement showing the imports of agricultural implements into Russia from the United Kingdom, Germany, and the United States during the years 1901–1904:

Year.	Simple machinery and implements.			Complicated machinery.		
	British.	German.	American.	British.	German.	American.
1901	$233,300	$2,392,700	$546,400	$752,400	$864,600	$1,065,500
1902	380,200	2,380,200	697,300	833,800	1,106,700	1,600,100
1903	497,000	2,308,100	.....	1,903,400	1,335,400	[a] 4,650,600
1904	308,800	1,967,400	.....	1,007,300	1,119,100	[a] 5,234,000

[a] The American totals in the last column include both simple and complicated machinery.

As the consul did not have official statistics covering the imports of American agricultural machinery into Russia for the years 1903 and 1904, the Bureau of Manufactures supplies the omission, for comparative purposes, by taking the official figures of the value of agricultural machinery and implements exported from the United States to Russia, and adding 12 per cent to cover the increased value thereof from their leaving American ports until entered at Russian ports, which would make them approach very nearly to what they would be valued at by the Russian customs.

The value of imports into Russia of American agricultural machines and implements, it will be noticed, is very much greater than the imports from Germany and the United Kingdom combined.

ZEMSTVO UNIONS.

ORGANIZATIONS FOR PURCHASING AGRICULTURAL SUPPLIES.

Consul Thomas E. Heenan, of Odessa, forwards a list of the zemstvos in ten of the leading provincial governments of Russia.

These zemstvos are agricultural organizations, through which large quantities of farming supplies and machinery are purchased, and are also for the promotion of cottage industries among the agriculturists, the products of which are sold with the aid of the zemstvos. The names and addresses of these zemstvos are on file at the Bureau of Manufactures for the use of American exporters.

Corresponding to the number of districts in each of these ten provinces, there are about a dozen of district zemstvos or "uyezdnaia zemskaia uprava" within each province, but in seeking trade through this medium, Consul Heenan adds that it would probably be best in the first instance to form the new business connections with the more central organs—the zemstvos of the provinces (gubernskaia zemskaia uprava) and then through these to extend the business to the various districts in each province.

FRANCE.

AMERICA'S "IMPORTED GOODS."

FOREIGN PRODUCTS PREFERRED REGARDLESS OF MERIT.

A French exporter in the Rheims district has related to Consul J. Martin Miller an experience during his only visit to the United States, made last year, which the consul thus summarizes:

Some of the American people have acquired a habit of purchasing imported goods simply because they are foreign made and to satisfy a fancy. Of course, the lady who visits Paris wants to purchase a new gown there regardless of the fact that she can get one that fits just as well, and is equal in every other respect, in any large American city. This is a different matter, however, from buying foreign-made goods in the home markets in preference to American-made articles from lack of due appreciation of the latter.

A French business man of Rheims, while visiting in the United States, inspected some of the great glass-manufacturing concerns at Pittsburg, and came away very enthusiastic about this industry in the United States. Upon his return to New York the wine glasses at the home of a friend by whom he was entertained, struck him as being artistic in design and beautiful in workmanship. "What exquisite glasses," he said to the host and hostess; "we make the wine in France and you Americans produce the glasses to drink it from." "But," said his hostess, her pride apparently touched, "we haven't a piece of American-made glass or tableware in the house."

The Frenchman at first thought that he was paying a deserved compliment, but now, to his embarrassment, realized that his remark was not accepted as such. "Ah!" said he, "in what country were they made?" "I do not know," answered the lady, "but do know that the house down town where we buy all our glassware guaranteed these to be imported."

ADVANTAGE TO EUROPEAN MANUFACTURES.

Being a large exporter to the United States, the Frenchman was practical enough to realize that he had secured a glimpse into an American characteristic which is a valuable asset to all foreigners in the export business. Pursuing the matter further he went to the store from which the glasses were obtained to purchase a dozen of the same kind. "Are these imported glasses?" he asked. "They certainly are," answered the manager with emphasis; "we do not handle domestic goods." "May I inquire where these glasses were made?" asked the Frenchman. "This particular glass was made in Belgium," was the answer, also naming the city. "Why," said the Frenchman, "I was born just across the line, within 80 miles of that place, and know the town and its industries well, and I am surprised to learn that this beautiful glass, which I at first thought was surely of American production, is manufactured almost at my home and that I had to travel 3,000 miles across the Atlantic to find it out."

Observation verifies the correctness of the theory that many articles are manufactured in foreign countries exclusively for export to the United States which are never sold in other countries. This is probably more correct of the United States than of any other country.

There is no doubt that many people who think they are purchasing imported goods which they imagine are quite the style at fashionable quarters in Europe, are laboring under a delusion, and that they are simply paying out money for something the shrewd foreign manufacturer and exporter, together with the equally shrewd importer in the United States, have designed to meet the fancy of those who insist upon having "only the imported article."

CATERING TO WHIMS.

The cloth factories over here often manufacture goods of special design or quality for certain large department stores in the United States, which goods in some instances are never sold elsewhere than in the store whose clever Paris buyer selected the special design, color and weave. But this is a fact not to be accepted as including all articles exported to the United States. There are some kinds of goods of foreign make that are peculiar to the countries where produced and which can not be grown or manufactured elsewhere. But without doubt it would be profitable for Americans who are addicted to the habit of buying the imported article at all times in preference to home-made goods, without discrimination, to inquire into the matter carefully and give American goods at least an equal chance where they deserve it.

It is an evidence that American products are becoming more renowned abroad when we see such signs as "New York Store" on Paris shops, but as yet there are probably more "Paris Stores" in New York than "New York Stores" in Paris.

PORTUGAL.

FOREIGN COMMERCE.

SHIPPING FACILITIES—POPULARITY OF AUTOMOBILES.

Vice-Consul-General R. H. Kinchant, of Lisbon, reports on the foreign trade of Portugal as follows:

The value of the imports for 1905 amounted to $77,907,000; the exports to $46,288,000. This was a decrease of $2,833,000 in imports and a loss of $3,121,000 in exports from those of the previous year. Of the imports, products worth $60,690,000 were for home consumption. The reexports amounted to $14,667,667, of which $10,811,250 worth were colonial products. The articles in transit were valued at $2,549,498.

The largest items of import were alkalis (caustic), wool, coffee, skins, leather, wrought and galvanized iron, coal, cotton, textiles, cereals, sugar, rice, beans, fertilizers, and leaf tobacco. The imports of leaf tobacco dropped from 4,003 tons in 1904 to 2,441 tons in 1905, due to an overstock on hand. Although not yet reaching large figures the import of automobiles deserves special mention in view of the probable increased demand. In 1904 there were imported 109 motors valued at $229,265, and in 1905, 160 valued at $326,768. Raw materials decreased $3,453,000 and food products showed an increase of $2,158,000. The principal articles entered for home consumption were as follows:

Article.	Value.	Article.	Value.
Animals, live	$3,138,867	Iron, etc.—Continued.	
Beans	436,356	Rails	$319,629
Cereals	7,115,612	Wrought	259,729
Chemicals	1,191,345	Oil, all kinds	1,417,621
Codfish, dried	3,054,659	Paints and inks	609,228
Coffee	660,134	Paper, all kinds	357,854
Copper apparatus	1,089,412	Rice	552,668
Cotton	3,670,317	Seeds for extracting oil	1,562,092
Fats	226,014	Skins, leather, etc	1,117,981
Fertilizers	862,096	Sugar	1,665,069
Iron and steel, manufactures of:		Textiles	2,380,670
Automobiles	326,768	Timber, etc	3,797,478
Cast	235,936	Tobacco	914,256
Galvanized	732,842	Wool	146,641
Machinery and machines	1,203,207		

In a purely agricultural country like Portugal it is only natural that the exports should belong chiefly to the soil. Cork, in all stages of preparation, showed a diminished export of nearly 6,000 tons. Wine showed an increase, especially in the common varieties; sardines, etc., a marked increase; fruit a decrease, and vegetables held their own. The leading exports were: Live animals, valued at $3,116,565; copper ore, $1,068,540; conserves, chiefly sardines, $1,654,137; cork, $2,714,013; wine, $10,469,383; olive oil, $542,898, and timber, etc., $561,214.

The exports to the United States during the year amounted to $6,255,413, and consisted of the following articles:

Articles.	Value.	Articles.	Value.
Arsenic, mineral	$20,309	Skins	$394,899
Cocoa	1,330,800	Tartar, crude	77,582
Cork, corkwood, etc	1,033,909	Toothpicks	10,506
Fruit	310,426	Wine	212,509
Oil, all kinds	257,889	Wool	22,448
Ore	238,398	All other	1,752
Rubber, crude	2,445,059		
Sardines	198,977	Total	6,255,413

The extension of the harbor works at Lisbon during the last few years is to be continued, as the bill for same has been passed by the Parliament, and when completed the port will be worthy of the city. The tariff rates continue much the same, and are generally high. The laws and regulations governing copyright, trade-marks, and patents, especially the latter, are of a somewhat complex character. Applicants for patents should engage professional assistance to carry through their projects, which must be presented to the proper authorities in Portuguese. The fees for a patent, exclusive of solicitor charges, are very moderate.

AUSTRIA-HUNGARY.

BOHEMIA.

FOREIGN FIRMS USE AN IMPORTANT CITY AS A SELLING CENTER.

Consul John S. Twells, of Carlsbad, desires to draw the attention of American manufacturers and exporters to Teplitz, a town in northern Bohemia, which may be justly designated as one of the best situated centers for the import of goods into Austria from the United States. He writes:

Teplitz, with the adjoining town of Schoenau, a health resort, and Turn, a manufacturing place, has about 40,000 inhabitants. It was famous in former years for its mineral springs, but since 1879, when an accident caused damage to the springs—although the damage has been overcome—it has gradually developed into one of the principal industrial towns of the Austrian Empire. In America it has been known for years as a town from which certain kinds of china, earthenware, glass, and textile goods are exported, but it is not so well known in regard to its favorable location, which affords an opening for the import of goods, and, indeed, not only many Austrian firms but also German and English have opened branch offices there and established factories, from which they supply the surrounding towns and districts and also many other parts of Austria.

Being situated close to the German frontier Teplitz has in many lines of business the advantage of the cheap German railway and water rates. It is situated 65 miles from Carlsbad, and 10 miles in an eastern direction lies Aussig, another large commercial town, through which the Elbe, the largest navigable river in Bohemia, flows to Dresden and Hamburg. The way from Teplitz to Aussig, and in fact to Bodenbach, on the Elbe, 15 miles farther east, and its sister town, Tetschen, is almost lined with manufacturing and coal-mining places and the same is the case in the western direction of Teplitz toward Dux, 7 miles, Bruex, 15 miles, and Komotau, 30 miles.

All these towns are the centers of large coal mines and factories producing textile goods, china, earthenware, buttons, glass, cotton yarns, etc. Good railway lines connect Teplitz with Dresden, 55 miles, Prague, 80 miles, and consequently with all parts of Austria and Germany. During the past thirty years Teplitz has become the principal town for the trade in the northern part of Bohemia. Numerous German manufacturers have established offices and agencies there. An English firm which manufactures agricultural implements has also opened lately an office in the place and it is considered necessary by firms that wish to transact business in north Bohemia to have an office or stock at Teplitz.

AMERICAN GOODS BECOMING KNOWN.

During the past few years some American goods became known at Teplitz and there are now several shops dealing in American shoes, fruits, sewing machines, typewriters, etc., but there are many more lines in which a trade—in fact, a large trade—might be done. In my opinion Teplitz is a suitable place for American firms to open offices, shops, and agencies similar to those of Austrian and German firms, which cover northern Bohemia and many parts of Austria and Hungary.

American goods which may sell in the district of Teplitz are: All kinds of machinery and tools for the coal-mining, china-goods and glass, textile, button, chemical, shipbuilding and sugar-manufacturing trades; breweries, leather, woolen and dress-goods factories; tinplate works; toy makers; agricultural implements; fatty substances and oils; and besides this, fruits, typewriters, office furniture, dogcarts, meat, corned beef, and other canned and preserved goods; certain patent medicines (examined by the Austrian Government), chemical articles, belts, whisky, bindings for books, boots and shoes; materials for dentistry, sanitary articles for bath and closets, drill-

ing goods, engines, fittings for gas and water, and other plumbers' supplies; wringing and washing machines, mining hoists, kitchen ware, household and office ware of iron; tin; steel, skates, locks, lumber; all kinds of machinery for factories of every description; American organs; packing material, india-rubber; paints; plows, pulleys, pumps, punches, railings, rubber goods, saddlery goods, saws, screws, tools for architects and master builders, and wires.

No large sale is likely in ales, cigars, furniture (except office), automobiles, bicycles, pianos, safes, salt weights or scales.

AMERICAN SPECIALTIES GRADUALLY GROW IN FAVOR.

Consul S. C. McFarland, of Reichenberg, reports in regard to the trade of Austria and Bohemia. He believes a favorable opportunity is opening up for the sale of American products, and writes:

Separate statistics of importation for this district or even for Bohemia are unobtainable. Vienna and Prague are the distributing and wholesale points within this territory, but a very large proportion of imported goods for this immediate section is distributed through commission and wholesale concerns at Hamburg and Bremen. It is indisputable that most, if not all, of these goods directly imported from the United States are officially entered as "imported from Germany," because of their distribution from the German ports.

Outside of the staples of cotton, dried fruit, and lard, which continue an even way, more stores carried American specialties, more general and local agents were appointed, more advertising of the practical sort was noticeable, and the public has gradually become accustomed to the appearance and general excellence of American importations. American houses are also learning that catalogues and price lists in English will not sell goods, and that painstaking steps to acquire a market are as necessary here as at home. The importance of German competition in almost every branch of manufacture can hardly be overrated. German manufacturers are good imitators, quick to follow American initiative, are close sellers, and understand the peculiarities of this market, and how to reach it, thoroughly. Spasmodic and abortive American attempts are frequently followed by plodding and practical German success.

NORWAY.

MODERN WHALING.

METHODS OF FISHING— COST OF MAKING OIL.

In response to a Seattle inquiry, Consul-General Henry Bordewich has gathered the following data regarding whaling, as practised by the Norwegians:

Whaling has been one of the pursuits of the people for ages, but practical, modern whaling is of rather recent date, having first been practised by Sven Foyn some fifty to sixty years ago. Norwegian whaling establishments are now found in different parts of the world—in Scotland, Iceland, the Faroes, South America, Japan and other

countries. Two different methods are in vogue. The rendering establishments may be located in vessels accompanying the steamers from which the whales are shot, or the establishment may be located on shore. The first method is generally adopted only in places where ice or poor harbors hinder the ships from reaching the shore. By the first method there is always much waste of material for the reason that only a part of the animal can be secured. I am told that only the sperm whale will float after being killed; other species have to be kept afloat by cables and it is found practically impossible to secure all of the carcass in the open sea.

By the second method every part of the whale is secured and all of it has its value. Whales may with profit be towed 100 to 300 and even 500 miles. The vessels employed are of dimensions about 96 feet long, 18 feet broad, and 11 feet deep. They are furnished with engines of about 350 horsepower.

A complete average-sized shore establishment consists of:

	Value.
A flensing platform or wharf at the landing provided with flensing tools and steam winch	$2,010
Blubber boiling establishment provided with 6 boilers, chopping knives and elevator, reservoirs for clarifying the oil, also boilers for the refuse	4,300
Steam winch and receiver for the krang (carcass after removal of the blubber) with platform	1,800
Establishment for boiling the krang provided with 8 boilers, machinery for transport, engine and 3 boilers for reboiling the oil	8,800
A guano factory with drying room, grinders and sieves, 2 engines, one for the grinding mill and one in the drying room	6,000
A power house, 2 boilers, and donkey pump	4,000
Storehouse	800
Lodging house for hands	1,300
Steamships	48,200
Tools, implements, etc	4,000
Total	81,210

A whaling establishment complete, as described, may be built in three months if a crew of 50 men including engineer is employed.

HOW A WHALE IS HANDLED.

The process for utilizing a whale after it has been landed is as follows: The blubber, after having been flensed from the body, is carried to the choppers, where it is cut into slices about one-half inch thick, thence by elevator to the boilers. The interior of these boilers is fitted with conductors, which through small perforations lead the steam into the mass of blubber, which is exposed some eight hours. After each boiling the mass is left to settle. The oil which gradually clears itself and floats to the top is thereafter led into barrels. The residue in the boilers is tried a second time for oil, and the dregs finally find their way to the guano factory.

The carcass of the whale, as left after the flensing, is cut to pieces on the platform and receiver for the krang, where krang and bone are elevated and placed in the krang boilers by machinery. In these boilers the mass is placed in layers on fixed shelves and hooks, and exposed to steam under heavy pressure. The boiling process continues some twelve hours, by which time the oil has been extracted, and the krang suitably prepared for utilization in the guano factory. The krang is now brought into the drying room. In this are found 8 shelves, placed above each other, inclosed in masonry. The heating is done by direct heat. The mass of krang is placed in the upper shelves,

automatically mixed, and gradually moved by rotating scrapers from the upper to the lower shelves, from which it is conducted into a mill working on the disintegrator system, from thence it is run through sieves and finally filled in sacks ready for market.

INCOME AND EXPENSES.

The output from one of the whaling establishments, of dimensions as described, in 1906, was after a five-months' run, as follows: 3,000 barrels oil No. 1, worth $102 per barrel; 1,000 barrels No. 2, $88 per barrel; 2,000 barrels No. 3, $78 per barrel; 1,000 barrels No. 4, $58 per barrel; 1,000 tons guano at $31, c. i. f. Leith, Scotland, and 25 tons whalebone, worth $6,500.

Of the oil, some 2,400 barrels were extracted from krang and bone. In order to make such an establishment pay, the yearly catch should be from 150 to 160 whales, provided it consists of the common varieties, though much less if any sperm whales are caught.

The yearly running expenses of such an establishment if located in northern Europe are estimated to be: 2,500 tons coal, $10,720; 150 tons coke, $900; wages for crew on 2 steamers, $6,000; wages for manager and crew ashore, $13,000; provisions, $6,000; tools and implements, $2,500; 7,000 barrels, $11,000, and sacks and extras, $3,000. The best European market for whale oil is Glasgow; for guano, Leith.

The principal difficulty for a whaling establishment on the Pacific coast in America to overcome, will be to find a good market for the several products. Whale oil is in Europe used for a variety of purposes—for machinery oil, in soap factories and tanneries. In some countries the whale meat, or krang, is even used salted for human food. None of the Norwegian whaling implements and machines are protected by patents as far as I can learn, but they, as well as the steamers, made specially for whaling, are considered by experts to be the best that possibly can be made.

NETHERLANDS.

A PROSPEROUS YEAR.

The following dispatch from The Hague to the London Times is of interest:

On the whole the year 1906 may be described as one of the most prosperous years in Holland's recent history. Agriculture and dairy farming, the economic corner stones of the Netherlands, have been more than usually profitable; the dry summer, combining with normally abundant water supply, produced excellent cereal and grass crops, and prices ruled very high. Industrial activity was at a high pitch, and commerce and shipping left little to complain of. The low water in the Rhine and its estuaries caused some loss and delays to the transit and river-shipping trades, but on the whole these trades also were very active, reflecting, as they did, the state of the German industries which use the Dutch waterways.

Still more conducive to the national welfare was the remarkable prosperity of the produce trades of Holland's vast East India colonies. Tobacco, tin, sugar, spices, and coffee came in abundant supplies, and sold at high prices, and this caused a degree of prosperity to prevail

in Java, Sumatra, and the other possessions which could not fail to affect the numerous Dutch capitalists who have invested enormous sums in these tropical possessions.

BELGIUM.

FOREIGN TRADE LAST YEAR.

Consul-General G. W. Roosevelt, of Brussels, writes that the special commerce of Belgium shows a considerable increase in both imports and exports for 1906 over 1905.

The imports in 1906 amounted to $593,584,045, an increase of $31,965,818, or 5 per cent over the previous year, while the exports rose from $423,182,801 in 1905 to $471,148,126 in 1906, being an increase of $47,965,325, or 11 per cent. The maritime movement also showed an increase, the arrivals being 12,945,567 tons, as against 11,615,856 tons for 1905, while the departures amounted to 12,904,877 tons against 11,554,368 tons.

GREECE.

COMMERCIAL AND PUBLIC INTERESTS.

Consul-General George Horton, of Athens, supplies the following timely items relating to commercial and economic affairs in Greece:

I am requested to inform manufacturers of leather belting that belting is sold in Greece by the oke (one oke equals 2.82 pounds) and not by yard or meter. Manufacturers wishing to do business with Greece should conform to this custom and quote prices in weight.

The minister of public instruction has submitted to the Vouli a bill to the following effect that should be of interest to numismatologists. "In view of the fact that there are many duplicate ancient coins in the Numismatic Museum at Athens, the duplicates should be sold, and other coins bought with the proceeds."

The mayor of Athens, on a recent trip to Paris, induced the Greek Gas Light Company, which has its central offices there, to reduce the price of Athens gas 28 per cent, that is to say, to 26 centimes (about 5 cents) the cubic meter for private use; and 47 per cent reduction for manufacturing purposes.

Greece was represented at the wireless telegraphy convention that met recently in Berlin. As a result, the minister of marine has ordered that the trees of the battle ships be rigged out with the necessary appliances for wireless messages. The central station of wireless telegraphy on the Island of St. George is nearly completed, and in a short time German experts will be sent for to make the installation.

ASIA.

BRITISH INDIA.

COUNTRY'S COMMERCIAL NEEDS.

A STUDY OF THE BUYING CAPACITY OF THE INHABITANTS.

Consul-General William H. Michael, of Calcutta, believes that a study of the population of India is necessary to a correct comprehension of its trade possibilities, which leads him to elaborate conditions there in the following letter:

The mere statement that India contains about 300,000,000 people may be very misleading. The question is, How many of this vast population will buy any given article of commerce; and how many will buy the manufactures of the United States? That is the paramount consideration in the expansion of American foreign trade. The total number of the white population in India, comprised of Europeans, Americans, and Australians, according to the last census is 169,677, and 87,030 Eurasians. Besides this there are 74,000 white British regular and 30,000 volunteer troops, making a total of 300,000 Europeans and Eurasians, allowing for the wives and children of the British regulars. The distribution of this white population is in thirteen provinces and eight States and agencies. These people dress and live in manner to require the same class of goods as are consumed in Europe, America, and Australia by the different class of society.

This leaves 299,700,000 of people of dark skin, who are divided up into various castes and religions and represent many grades of purchasing ability. The princes, maharajahs, rajahs, marwaris, parsis, babus, and native professional and rich trades people have money with which to buy whatever they require to please their fancy or to meet their actual needs. This class build expensive houses, residences and business houses, and provide them with modern conveniences when it is practicable, and with furnishings that are usually rich and expensive. For example, a maharajah has recently had constructed in England a brass bedstead that cost him $1,500. They use the finest and most expensive carriages, highest priced horses and harnesses, and buy without regard to cost musical instruments, pictures, statuary, autos, jewelry, precious stones, silks, satins, linens, mulls, laces, gold trimmings, etc.

CLASSIFICATIONS OF CONSUMERS.

There are 200,000,000 people in India supported by agriculture, 50,000,000 supported by the industries, 5,000,000 supported by commerce, 5,000,000 supported by the professions, and the balance are dependents. The native ryots or farmers and their families consume

practically nothing of the class of goods made in the United States except cottons, and these they buy principally of Indian-made goods and those made in the united colonies. They probably would buy soaps, and agricultural implements of the cheaper kinds, to some extent if they were taught how to use them. It is a hard proposition to impress the minds of a people with the necessity of a change from the practices that have been in vogue for hundreds of years, such as using the forks of the trees for plows.

The fifty millions supported by the industries are much in the same position. They live in huts without furniture except that made in the crudest possible way, without carpets or rugs, and utterly destitute of any of the evidences of refinement that characterize the humblest home in America. A few yards of cotton cloth comprise the wardrobe of both male and female. The women wear anklets, rings in their noses and ears, and some of the men wear rings on their great toes and armlets, and go barefoot the year round. The native population supported by commerce creates little or no demand for foreign-made goods except the finer grade of cottons and some other fabrics of higher grade, such as silks, veilings, ribbons, etc.

INCREASING IMPORTATIONS.

The total imports for 1905–6 amounted in value to $413,290,572, of which the value of the merchandise was $343,552,942, the balance being gold and silver. The imports of cotton yarn and piece goods in 1905–6 amounted in value to $137,777,777, which is more than one-third of all the merchandise imported, and if the Government imports are eliminated more than one-half. These goods consist of cotton yarns, gray, white, and colored; shirtings, gray, white, and colored; chadars, dhutis, saris, and scarfs; jaconets, gray, white, and colored; mulls, gray, white, and colored; jeans and sheetings, gray, white, and colored; gray madapollams, T-cloths, domestics, and prints; white nainsooks, cambrics, twills, muslins, and lawns, checks, spots and stripes, long cloths, and colored prints and chintz, cambrics, twills, and muslins. Besides these there were some cotton goods imported that are not described.

The total in yards of cotton goods of all kinds imported was 1,297,612,999. The gray goods amounted in yards to 605,000,000, white goods, 109,620,000, and colored, 80,410,000. Of these goods Britain supplied as follows: Gray cottons, 99½ per cent; bleached cottons, 98.09 per cent; and colored cottons, 95.32 per cent. Besides the imported cottons the Indian weaving mills produced 562,900,000 yards of unbleached shirtings, dhutis, T-cloths, domestics, and chadars, and just the number of yards produced by hand looms throughout India is unknown, but the yardage of these looms is estimated to exceed that of the mills.

In addition to the above importations there are importations of handkerchiefs and shawls in the piece amounting to $1,165,333, hosiery amounting to $2,100,666, and sewing thread amounting to $853,666. It is needless to say that the manufacturers of cotton goods in the United States can meet the Indian demand for cottons if they go about it in the right way. They should first of all acquaint themselves with the qualities and styles of goods wanted, and then enter the field for business.

The United States is prepared to increase the amount and variety of machinery exported to India, and all that is needed to accomplish it is the effort that American manufacturers know well how to make. The steam engines from all sources imported into India during 1905–6 amounted in value to $3,427,333; textile machinery, $8,210,666; electrical machinery, $768,666; mining machinery, $197,000; other kinds, $3,795,333. This is an increase of 22 per cent over any previoug year, and is regarded as one of the most healthy and encouragins features of Indian trade.

AMERICAN ARTICLES SOLD—SHOE COMPETITION.

A careful canvass discloses the fact that the following articles of American manufacture are to be found in the Indian market:

Boots and shoes.
Arms and ammunition.
Books and stationery.
Building materials.
Buggies, carts, and wagons.
Clocks and watches.
Porcelain ware.
Glass and glass ware.
Instruments and apparatus.
Leather and manufactures of leather.
Painters' materials.
Soap.
Requisites for games.
Umbrella fittings.
Typewriters and supplies.
Motor cars.
Refrigerators.
Oils.
Patent medicines.
Drugs and druggist supplies.
Canned fruits.
Canned soups.
Canned meats.
Dyes.
Chemicals.
Cigars.
Tobaccos.

This may not be a complete list, yet it is sufficient to be suggestive and helpful. England is the real competitor. When she can not manufacture what is wanted, she reexports to India articles made in the United States, and sometimes brands them as her own. I asked for a pair of American-made shoes the other day, and was told they had what I wanted. The shoes were placed before me, and I said with suggestive emphasis, "Were these made in the United States?" With some stammering the clerk replied, "Well, no; they were made in England on American lasts." Upon close examination I found stamped on the lining the words, "Made in America." The appearance of the shoes showed that they were not made in America. They lacked the finish of American-made shoes.

When the American manufacturer invades the Indian market in the right way with samples and determination he will succeed in capturing his share of the trade, and with proper care will not only hold what he gets at first, but will be able to increase it right along.

STEPS IN DEVELOPMENT.

TRANSPORTATION AND INDUSTRIAL PROGRESS.

Consul-General Michael also reports on a number of industrial and commercial topics as indicating considerable progress throughout British India. He writes:

The governments of Eastern Bengal and Assam are acquiring land in the Goalpara district for the purpose of constructing a line of railway from Golakganj, on the Dhubri section of the Eastern Bengal State Railway, to Gauhati, a distance of 2½ miles.

The Basel German mission at Feroke, near Calcutta, is putting in what will be the largest tile factory in India, to be worked by modern machinery in making tiles. The kiln will have a capacity for 200,000 tiles at a time.

There is great need of a brickmaking establishment equipped with modern brickmaking machinery. There is abundance of material and a growing demand for the bricks. The prices on even the commonest handmade bricks, called pug-mill bricks, have advanced within the last year 50 per cent, and an American company with a mill equipped with the best American brickmaking machinery would make big money here, if started in time.

DEMAND FOR SOAP.

The demand for soap in India is on the increase, as it is also reported to be in China. Some Indian capital is moving toward meeting the demand by the erection of soap factories. This opens a demand for American-made machinery for making soap, and also suggests the importance of India to soap manufacturers in the United States as a field for their trade. An agent of tar soap made in America recently went through India and placed orders for tons of this soap, which, I understand, is giving good satisfaction. While on this subject it is proper to say that the most eminent physicians in Calcutta ascribe several forms of aggravating skin diseases to the effect of the irritating quality of the water used for ablution purposes. This fact has created a demand for certain soaps of American manufacturers that possess healing qualities. But none of these soaps quite measure up to the requirements. A study of the problem by a soap chemist, acting in conjunction with a physician of repute who understands the diseases caused by the water, should be able to produce a soap that would find extensive sale in India when brought effectively to the attention of consumers.

PRACTICAL SELLING METHODS.

The man who has given his whole time to selling American goods in India for a series of years is competent to testify as to the best means of getting Indian trade and keeping it. I have interviewed many of this class, and each one has said emphatically the best way to get orders is to show the goods and take orders on the spot. The way to hold the trade thus obtained is to deliver the goods as shown, to pack them as they should be packed for perfect delivery, and to deliver on time. This involves several things worthy of note—responsible agents, a full line of samples, samples to meet the demands of the country, compliance with suggestions hitherto made on the subject of packing goods for a long ocean voyage, and direct communication. All of this is easy except the direct communication. That never will be easy until the United States owns ships and operates them with a view to meeting the requirements of American foreign trade.

INCREASING IMPORTS.

The following is a summary of the imports of merchandise for all India for the seven months April to October, for the last three years:

	1904.	1905.	1906.
Animals, living	$686,980	$695,421	$712,519
Articles of food, drink, etc	22,260,753	22,764,264	31,911,506
Metals, and manufactures of hardware and cutlery, machinery, mill work, and railway plant and rolling stock, copper, iron, and steel, and other metals, etc	33,151,385	32,384,293	40,434,658
Chemicals, drugs, medicines, narcotics, and dyeing and tanning materials, etc	4,923,362	5,445,401	5,556,217
Oils:			
Mineral	6,564,767	4,692,171	4,392,772
Other	301,161	354,603	771,113
Raw materials and unmanufactured articles, coal, coke, precious stones and pearls (unset), silk, timber, etc	6,664,214	9,379,236	7,862,515
Articles manufactured and partly manufactured:			
Cotton yarn	4,521,394	6,442,201	6,561,433
Cotton piece goods	63,707,054	68,279,096	68,164,883
Other articles, cotton, silk, woolen apparel, carriages and carts, glass and glassware, instruments, matches, paints and colors, paper, etc.; stationery, etc	37,128,848	37,595,611	38,574,729
Total	179,909,918	188,032,297	204,942,344

ACTIVITIES IN MANY LINES OF PROFITABLE INDUSTRY.

In the seven months ended October 31, 1906, the quantity of yarn spun was 393,630,443 pounds, against 403,089,390 in the corresponding months of 1905. In the same periods the quantity of cloth woven in India mills was 424,471,055 yards and 335,637,251 yards, respectively.

In 1890 the total number of jute looms in India was 7,964, and on January 1, 1907, 26,799. The sacking looms doubled in number, and the Hessian looms increased sevenfold during the same period.

The agricultural department of Bengal has opened and is successfully operating a seed and implement store.

Demonstrations carried out officially of the flying-shuttle loom, an Indian invention, in Shillong, have created a demand for instruction in its use by both the Khasias and Bengalis, and has led private parties to establish a weaving institution at Sylhet, which is aided by the authorities. Besides, the local government has had a small number of students fully instructed at Chinsura.

The last official report on the prospects of the Burma rice crop of 1906–7 puts the total area under cultivation to the end of November at 7,081,198 acres, an increase of 367,806 over last year's area. Except in one district, Prome, prospects are generally satisfactory, as the late rains were beneficial. The surplus available for export is estimated at 2,343,000 tons of cargo rice, equivalent to 39,712,000 hundredweight of cleaned rice.

MADRAS COTTON CROP SMALLER.

The area at the end of November of the Madras cotton crop of 1906–7 was returned at 1,363,900 acres, or 4 per cent under the area of the corresponding period of 1905.

The last official report on the Madras indigo crop of 1906–7 puts the total area under cultivation to the end of November at 149,300 acres, an increase of 86 per cent over the area of the corresponding period of 1905. The crop is reported to be generally in good condition, and is

expected to yield 80 per cent of a normal crop, but is in need of rain in parts. The estimated yield of the crop of 1906–7 is put at 1,896 tons, as against the actual yield of 864 tons in 1905–6.

The Bombay government has decided to start an experimental plantation for the cultivation of the manila hemp plant. A large supply of "shoots" has been furnished by the Madras Botanical Gardens for the purpose. It is believed that the soil and climate of the western part of India, in the Bombay Province, are well adapted to the growth of the manila plant. Perhaps the Philippine Islands might undertake the cultivation of ramie and jute, Indian products, in addition to the hemp plant.

Thus far chrome tanning has not proved very successful in India, yet the effort at improvement has been going on and is still progressing. The Administration Blue Book of the Madras Presidency, recently issued for 1905–6, says that the progress made in chrome tanning in that presidency has been satisfactory. The industry is carried on at the Government School of Arts, and a considerable amount of the leather was sold during the past year for boots. The quantity thus sold is not stated.

In the northern Shan States of Burma the tea crop of 1905–6 is reported to have been exceedingly good. Cultivation was largely extended during the year, no fewer than 10,000 fresh plants having been planted by a single village in Towngpeng. The most noticeable feature of the trade of the States with Burma during the year was the large extent of the traffic in tea. With a view to revise the former trade in this commodity with Siam, the Straits Settlements, and Hongkong, samples were sent to a Chinese firm in Rangoon, but the result has not yet been reported.

A terrible calamity in 1905–6, in the southern Shan States, was the appearance of rinderpest. It swept through the land and carried off some 68,000 head of cattle.

TIBET ACCESSIBLE.

NOW OPEN TO COMMERCE AND TRAVEL.

Consul-General Michael finds that a good deal of interest is evinced on the part of both Hindoo and Mohammedan traders, particularly the latter, in opportunities of trade in Tibet, concerning which he writes:

There is no opposition manifested by Tibetans to traders, who are now passing freely between Calcutta and Lhasa. The bulk of the trade thus far is not much, but is on the increase. In a conversation with a Tibetan civil officer, who talks very good English, and whose business is to suppress illicit distilling which is carried on in the Himalayan Mountains much after the fashion of American "moonshiners," I learned that there is really an eagerness on the part of the masses in Tibet to know more of the outside world, and to trade with "the white people." The little light they have makes them hungry for more, and it is quite reasonable to conclude that they will be gratified. The Mohammedan traders of Lhasa are the most active in bringing out articles for sale, and their brethren are most active in carrying articles for trade. Many Europeans are making inquiries of the officials at

the British trade agency at Gyantse as to the safety of trade efforts in Lhasa. They have been told that conditions are reassuring, that the relations with the inhabitants are excellent, and that everywhere the greatest civility is met with. It may be expected, therefore, that it will not be long before a "department store" will be in operation in Lhasa under the management of an enterprising Briton, unless some keen American gets in ahead.

In referring to the trade aspects of the situation, the British trade agent at Gyantse says: "Indian merchants have not so far shown any great inclination to avail themselves of the right of access to Gyantse derived from the Lhasa convention." He says, however, there are evidences of no unmistakable character that important trade relations will soon be opened up between Lhasa and the outside world. The way to Lhasa is by way of the Eastern Bengal and Darjiling Railway to Darjiling, the terminus of the road, and then on pony back and pack animals through the Jelap Pars into the Chumbi Valley and on to Lhasa. The Chumbi Valley is only about 20 miles from the Pars, and is now garrisoned by a British force. Formerly it was held by a Chinese force, which was always in the way of the advance of a European going into Tibet.

ROUTE ACROSS THE MOUNTAINS.

Much work will have to be done and much money expended before a practicable wagon road will be available connecting Darjiling, the railway terminal on the southern side of the Himalayas, with the capital of Tibet. Yet it will be constructed in good time, and I would not be surprised to see the narrow-gauge road, which does much excellent service in carrying passengers and freight up the Himalayas to a point 8,000 feet above sea level, pushed on into Tibet to meet the demands of trade. It would be no more difficult as an engineering triumph than the ascent from the plains to the Darjiling heights.

While Jelap Pars is the lowest one in the range that divides Sikkim from Tibet, a careful survey might find some other less difficult route through the range of mountains. Up to this time, however, no more practicable route has been found. Jelap Pars leads up to a height of 14,500 feet, and is passable all the year round. Ponies, mules, and coolies can make good time under good loads through the Pars, notwithstanding the elevation. Leaving Darjiling and crossing the Teesta, the ascent really begins, but a dozen miles or so brings the traveler to Kalimpong, a subdivisional station, where rest and refreshments may be taken. From here five easy marches will bring the traveler to the entrance to the Pars, and those accustomed to mountain climbing accomplish the trip without difficulty. From the summit Tibet stretches out in delightful view, the Chumbi Valley forming one of the most beautiful features of the scene.

Considering what has been accomplished on the western slopes of the Himalaya Mountains in tea culture, there is no telling what developments of industry and trade might be made within a few years with railroad facilities of travel and traffic in Tibet.

Among the more important mineral products of Tibet are borax, niter, rock salt, iron, silver, copper, gold, turquoise, and lapis-lazuli. Of these considerable are exported, in addition to musk, furs, etc.

TRADE OF THE PUNJAB.

LARGE INCREASE IN IMPORTS—CLASSES OF GOODS BOUGHT.

Consul-General Michael also submits the following statement on the internal trade of the Punjab, a northwest division of the Indian Empire:

The Punjab is traversed by the Indus and connected with the great wheat depot of Karachi by rail and possesses other railroad facilities for traffic, which during the fiscal year of 1906 was as follows: Imports in pounds 2,741,073,360, and in value $73,605,069. The exports were in pounds 3,454,019,040, and in value $61,205,241.

The increase in the imports are commented upon as abnormal, the weight exceeding all previous years, and the excess in value over the fiscal year 1905 was $12,000,000, while the drop in the weight of exports, amounting to 760,000,000 pounds, was due to the unsatisfactory agricultural conditions of the year. The value of the exports show a decline of $966,666. The apparent incongruity between the weight and value is explained by the high prices obtained for grains during the year. The price per 80 pounds for 1905 was 72 cents, while in 1906, 90 cents was obtained.

The heavy trade was made up of raw cotton, European and Indian piece goods, oil seeds, sugar, gur, and railway materials. In the case of sugar and gur the increase of imports was unusually large. Sugar imported from Karachi, Bombay, and Calcutta increased in weight over last year to the amount of 64,000,000 pounds, valued at $1,708,333, while the imports of gur, almost entirely from the United Provinces, showed an advance of 104,000,000 pounds, valued at $2,033,333. This surely does not indicate that the agricultural drawbacks of the year paralyzed the spending power of the people of Punjab.

JUTE EXPORTS.

LAST YEAR COMPARED WITH TWO PREVIOUS YEARS.

Mr. Michael furnishes the following figures showing the quantity and value of jute and Hessian cloth exported from India for eight-month periods ending November 30 for the three years mentioned:

Years.	Jute.		Cloth.	
	Quantity.	Value.	Quantity.	Value.
	Tons.		*Yards.*	
1904	390,159	$22,986,120	404,000,000	$11,902,343
1905	412,912	31,558,700	453,000,000	14,351,475
1906	458,866	51,221,917	462,000,000	14,598,951

The declared value of the jute and jute cuttings in the 1904 period was $58.66 per ton; in 1905, $76.33, and in 1906, $111.33. The excess value of jute exported in the eight months in question in 1906 over the 1904 period was $28,235,797, and of Hessian cloth $2,696,608.

In regard to the movements of jute at Calcutta and Chittagong for the six months ended December 31, 1906, Mr. Michael writes:

The imports into Calcutta were 5,507,516 bales; and at Chittagong, 384,149 bales. Of this total of 5,891,665 bales there were exported to all places, 2,926,020 bales; taken by local mills, 2,465,337 bales; stocks

at press houses, about 150,000 bales; at local bazaars, 200,000 bales; and in holds of ships, 150,000 bales. Of the exports Europe took 2,518,252 bales of jute, 24,248 bales of rejections, and 29,964, bales of cuttings; while America purchased, respectively, 1,185,212, 6,779, and 167,168 bales of these respective grades.

CALCUTTA'S INCREASING TRADE.

PROSPEROUS CONDITIONS AT BRITISH INDIA'S LEADING SEAPORT.

In a review of the foreign trade of Calcutta for the month of November last Mr. Michael writes:

Calcutta's foreign trade by sea for November was more satisfactory in some respects than that of October, although the latter month was considered a good one. The advance was from $14,733,333 to $16,833,333, or an expansion of $2,100,000 during the month. This expansion applies to both merchandise and treasure, although the increase of treasure was largely in excess of that of merchandise. The increase in gold received in November over that of October was from $2,108,333 to $3,700,000. Very little of this gold came from England, Cape Colony supplying $1,125,000 and Australia $2,575,000.

The total receipts of merchandise in value was $13,333,333, or an advance over the receipts in October of $525,000. Cotton goods, however, with the exception of yarn, fell off during the month to the amount of $1,450,000. The total value of cotton goods received was $4,800,000, as against $6,241,666 in October. Woolen goods also decreased in value $108,333. There was a decrease in apparel and kerosene oil and all kinds of liquors except gin. Railway materials increased during the month to $808,333, which was more by $483,333 than the receipts of October.

The increase in metals amounted to $408,333, and there was an increase in spices, hardware, glassware, and other articles amounting to $160,000. The reduced trade reported in sugar for October changed to an increase in November, which amounted to 293,865 hundredweights, against 113,676 hundredweights in October. Of the amount of sugar received only 14,000 hundredweights was made of beets, the bulk coming from Java, and 24,692 hundrdweights from Mauritius. The unrefined sugar received was 24,692 hundredweights and receipts of molasses amounted in pounds to 118,210 hundredweights.

TRADE POSSIBILITIES.

OPPORTUNITY FOR INCREASING SALE OF UNITED STATES PRODUCTS.

In the British Indian official report of foreign trade covering the fiscal year 1906, the only American products mentioned are mineral oil and cigarettes, which were imported to the value of $3,097,000 and $370,000, respectively. But much of the American goods imported comes from other countries, owing to lack of direct steamship lines, and the United States is not given credit for the same. The percentage share of the leading countries in Indian imports is given in the official report as follows: United Kingdom, 66.7; Belgium, 4.3; Germany, 4.2; Austria-Hungary, 3.9, and the United States, 2.2, against 1.1 per cent in 1905. Furthermore, the United States, which had been taking about 6½ per cent of India's exports for the preceding four years, in the fical year 1906 purchased 8½ per cent. Taking the total

imports of British India into consideration, the computation of the compiler of the official report would make the imports of American products for the fiscal year 1906 about $7,350,000, or double the imports of 1905, and nearly double the imports of each of the three years preceding 1905.

The following statement has been prepared by the Bureau of Manufactures, showing the imports, by articles, into British India during the fiscal year 1906, imports for government account not included:

Articles.	Value.	Articles.	Value.
Cotton manufactures:		Precious stones and pearls	$4,846,100
Gray piece goods	$61,341,000	Instruments and apparatus	2,965,909
Bleached piece goods	27,464,700	Raw silk	2,306,600
Colored piece goods	30,932,600	Aniline and alizarin dyes	2,452,700
Yarn	11,098,600	Salt	2,135,800
Other cotton goods	6,688,000	Drugs and medicines	2,190,000
		Paper and pasteboard	2,283,900
Total	137,524,900	Cotton	1,750,600
Sugar	25,187,800	Chemicals	2,233,700
Iron and steel	21,531,100	Beer	2,039,900
Machinery and millwork	15,939,500	Timber	2,639,600
Mineral oil	7,222,000	Tobacco	2,127,800
Woolen manufactures	7,861,900	Horses	1,515,000
Hardware and cutlery	7,360,300	Carriages and carts	2,488,300
Apparel	7,189,600	Matches	1,906,100
Provisions	7,752,000	Paints and colors, and painters' materials	1,598,000
Silk manufactures	6,160,900	Coal	1,040,700
Copper	4,644,500	Stationery, other than paper	1,221,500
Railway material	5,356,200	All other articles	36,281,500
Glass and glassware	3,645,300		
Spices	3,508,900	Total imports	339,933,500
Spirits	3,524,900		

The peculiar grouping of products in the Indian report renders a few explanations necessary. The products embraced under "All other articles" were arms and ammunition, books and other printed matter, building materials, clocks and watches, earthenware and porcelain, scientific instruments, jewelry, leather and manufactures thereof (boots and shoes are included with apparel), ships, soap, tea chests, toys, umbrellas and fittings, etc.

EXPANDING LINES OF TRADE.

Carriages and carts include motor cars, motor cycles, and cycles. The motor car and motor cycle trade has assumed such proportions that it henceforth will be shown separately in statistical tables. The exceptionally enticing cycle trade in all its branches has been explained in previous numbers of Consular and Trade Reports. Provisions include fruits, salted fish, etc. The largest single item under the import of provisions is dates. The steady increase in the imports of biscuits is, says the official report, an example of the acquisition of new tastes by the Indian people. Under the head of hardware and cutlery, agricultural implements and tools and sewing machines are embraced. The United Kingdom and Germany are credited with controlling this trade, the United Kingdom, with 68.8 per cent thereof, holding the principal share.

The articles embraced under the head of iron and steel, of which the imports from the United Kingdom, Belgium, and Germany compose nearly the whole, were bars, galvanized and tinned plates, and sheets; angle, bolt, and rod; angle, channel, and spring; beams, pillars, girders, and bridge work; pipes and tubes; nails, screws, and rivets, etc.

Under the head of machinery and mills the following were imported: Textile machinery, $7,980,800; steam engines, $3,331,400; electrical machinery, $747,100: mining machinery, $191,500; other machinery not specified. The imports of mineral oil in 1906 were valued at $7,222,000, of which kerosene composed $5,777,500, American kerosene amounting to $3,097,000, the largest imports of American oil in the history of the trade, although the total imports were $2,400,000 less than those of 1905.

The imports of cotton manufactures, however, lead all other imports, and their continued volume and value, notwithstanding the development of the Indian cotton industry, is remarkable. The total import of piece goods in the fiscal year 1906 amounted to 2,463,230,000 yards, of which Great Britain furnished 2,415,180,000. The imports were 2,032,720,000 yards in 1904 and 2,288,380,000 in 1905, which indicates the growth of this trade.

BOMBAY.

IMPORTS RAPIDLY INCREASING—AMERICAN SHARE.

Consul E. Haldeman Dennison reports on the foreign trade of the Bombay Presidency for the year ending March 31, 1906, which he states amounted to $349,659,279, of which $168,518,709 were imports and $181,140,570 were exports. The consul writes:

Practically all of this passed through the port of Bombay, so that the figures used herein for the Presidency are in reality those for this port. Bombay has always been able to maintain the balance of trade in her favor, but in recent years the import figures have been gradually approaching those of the exports. This is the result of the wonderful development going on all over India, and to the gradual raising of the standard of living, and to the desire of its people for better articles than India is able to produce. If the uncertain quantity of treasure be excluded, the statistics will show an ever increasing growth in the import trade of this Presidency. The values of imports for the last four years, excluding treasure and government stores, have been:

Articles.	1902-3.	1903-4.	1904-5.	1905-6.
Animals, living	$617,084	$937,565	$925,921	$679,810
Articles of food and drink	13,669,965	14,815,846	16,313,661	17,659,637
Metals and manufactures	16,126,853	18,161,682	17,221,876	20,151,928
Chemicals, drugs, etc	3,795,967	4,499,346	4,168,502	4,492,207
Oils	4,305,178	3,759,187	3,201,522	2,653,908
Raw materials and manufactured articles	7,586,932	7,325,900	9,975,903	10,950,225
Articles manufactured and partly manufactured	45,937,759	50,250,113	58,171,717	65,143,591
Total	92,039,688	99,749,639	109,979,102	121,731,306

The United Kingdom furnished $69,834,933 in 1905–6, and her position is predominant. Germany undoubtedly stands second, for a large part of her goods are shipped from Belgium and Dutch ports, and their nationality consequently becomes lost. The imports from the United States amounted to the small sum of $2,952,845, of which $1,217,573 was kerosene oil.

India is primarily an agricultural country and an exporter of raw materials. Except in the manufacture of the coarser grades of yarns

and cotton goods, India's industries are still in an undeveloped state, and for many years she will continue to be a large importer of manufactured articles.

ENTERPRISE OF GERMAN MANUFACTURERS.

Germany is making wonderful progress in furnishing those articles, and her position is much stronger than the statistics indicate in the trade returns. Germany realizes the immense importance of this market, and her success is due to a serious study of the best manner to introduce goods. German manufacturers have the field covered with their representatives, who are thoroughly acquainted with the situation, and if America would only follow the example its position could materially be improved.

The history of American efforts to do business with India is not a creditable one, with many unfortunate mistakes and much bad management, with the same old story of bad packing, delay in executing orders and refusal to conform to the system of payment in vogue. The few commercial travelers who are sent out from America to India have not always been of a class to inspire confidence, and by broken promises and dishonest methods have done much harm to attempts to enter the market, and merchants who have had any experience in dealing with America tell me the same old story about our bad packing. One of these imported a church organ which arrived shattered and absolutely useless, another a lot of refrigerators with the nails driven through the zinc linings, and so it goes. In no case have I discovered that one cent's worth of damage was ever recovered, and the loss invariably falls upon the importer. Here, then, is one of the greatest markets in the world which Americans are almost ignoring, or else through ignorance of the proper methods to pursue are doing great harm to future business.

CAREFUL PACKING BY ENGLAND AND GERMANY.

In England and in Germany the greatest care is observed in the proper packing of goods. As a rule this is an extra charge on the importer, but he is perfectly willing to pay this rather than run the risk of the goods arriving in a damaged condition. A local American commission agent has become discouraged in his attempts to promote the sale of American goods simply because of inferior packing, and now confines such importations to iron safes. The successful foreign firms never demand payment until arrival of goods, and the custom of American firms of demanding payment at the time of shipment is a great factor in curtailing sales.

There are two lines of steamers from New York to Bombay each requiring one transshipment. The United States should have communication by a line of steamers coming directly through. England controls 70 per cent of India's foreign trade largely because of her excellent lines of steamers, which make the journey in from three to four weeks. Germany, France, Italy, and Austria-Hungary each have lines running to India. The sales of India to the United States amount to over $32,000,000 a year; these would greatly increase with the establishment of a direct line of steamers, and would assure them of return cargoes.

While these matters have been the subject of frequent consular reports, until manufacturers heed these efforts to help them, consular

officers can do them no greater service than to keep pounding away on the same old subjects. Until this advice is followed, little can be accomplished by the consuls to serve them successfully. There are many manufacturers to whom these remarks do not apply, as they have successfully mastered the problem of the export trade by observing these fundamental principles, but they are in a small minority, the average producer trying to do business with countries on the other side of the world in the same manner that he would pursue with a customer in an adjoining city.

MALAYSIA.

STRAITS SETTLEMENTS.

AGGREGATE SHIPMENTS OF VALUABLE COMMODITIES FOR LAST YEAR.

Consul-General D. F. Wilber, of Singapore, furnishes the following statement, showing the quantity, in tons of 2,240 pounds, of exports of the principal articles from the Straits Settlements, including the ports of Singapore and Penang, during the calendar years 1905 and 1906 to the United States direct, to England, the Continent of Europe, and total to all countries:

Articles.	United States.		England.		Continent of Europe.		Total all countries.	
	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Cloves	120	30	59	26	1	.....	180	56
Coffee	504	443	.....	3	832	640	1,336	1,086
Cubebs	44	69	.....	3	.....	.....	44	72
Gambier	15,335	13,281	7,768	9,490	9,682	8,737	32,785	31,508
Gutta-percha	339	419	1,358	1,154	976	821	2,673	2,394
Gutta jeletong	9,660	10,425	335	835	985	798	10,980	12,058
Gums:								
Copal	4,139	3,928	2,849	2,234	1,955	1,252	8,943	7,414
Dammar	190	157	92	136	166	120	448	413
Benjamine	23	23	169	70	289	157	481	250
Hides	284	208	2,703	2,016	525	510	3,512	2,734
Mace	32	66	27	14	11	22	70	102
Nutmegs	400	456	163	125	2	16	565	597
Pepper:								
Black	5,139	6,614	1,577	1,383	6,525	4,528	13,241	12,525
White	2,094	1,393	1,861	2,311	3,215	2,071	7,170	5,775
Pineapples (cases)	103,734	63,148	346,087	313,407	52,483	52,782	502,304	429,337
Rattans	5,096	4,750	2,329	2,399	10,499	9,756	17,924	16,905
Rubber:								
Para	6	4	294	88	24	4	324	96
Borneo	824	673	437	336	826	673	2,087	1,682
Sagos:								
Flour	4,473	2,820	21,415	22,416	12,672	14,197	38,560	39,433
Pearl	158	64	1,617	708	2,116	334	3,991	1,106
Tapiocas:								
Flake	845	848	5,540	5,369	5,204	4,052	11,589	10,269
Flour	1,725	3,784	5,885	9,055	65	1,346	7,675	14,185
Pearl	6,599	5,785	5,399	5,671	2,355	4,406	14,353	15,862
Tin	15,008	16,879	34,434	31,512	7,437	8,492	56,879	56,883

TRADE POSSIBILITIES.

MERCANTILE NEEDS OF JAVA, SUMATRA, AND MALAY STATES.

The Australian commercial agent at Singapore furnishes his Government a letter relative to the possibilities of trade with Java, Sumatra, and the federated States of Malay. He says, in part:

With the exception of two or three English houses the whole of the import trade of Java is carried on by Dutch firms or companies. The

population of Java is about 30,000,000, of which about 60,000 are Dutch or their descendants. There are supposed to be about 500,000 Chinese on the island, and the larger proportion of the retail or distributing trade is practically in the hands of Chinese traders.

There is a limit to the consumption of food products in Java, due to the fact that a vast number of the population live to a large extent on rice. The principal proportion of the butter imported comes from Holland, and a small quantity from Denmark. It is put up in 1 to 10 pound tins. A considerable trade is done in cheese, not only for consumption, but for distribution to other towns in the Dutch Indies. Most of the cheese comes from the Netherlands. Flour comes from Australia, the United States, and a small quantity from Hungary. Until 1903, at least three-fourths of the flour was supplied by the United States, but since then a steady increase has taken place from Australia, and now the largest supply comes from there. Most of the flour is put up in 50-pound calico bags.

BACON AND HAMS SUPPLIED BY HOLLAND.

A large trade in Java is done in bacon and hams, most of which is supplied by the Netherlands. Small-sized hams, from 9 to 10 pounds weight, are preferred. The imports of canned apricots, peaches, and pears are almost wholly from California. A large trade is done in biscuits, which are put up in sealed tins of various sizes, most of which are supplied by England. Condensed milk is nearly all imported from Europe, Switzerland furnishing the largest supply. In the whole of the East there is a great market for this article, which is being supplied from Europe, the United States, and Canada.

There are several large importers of machinery in the Malay States, especially in the neighborhood of Kuala Lumpur, the capital. The requirements for implements are large, and a good trade will be established if they will suit and can be worked properly. Tin mining is carried on in the old, primitive system by Chinese, but at several of the large mines modern appliances and machinery are used. In the mining towns of the Malay States, and on plantations there, and in Sumatra, where canned meats have been used very considerably by the European population, people were not purchasing the American article, and whatever is now used is European or Australian. It would pay any leading implement maker to send an expert to give exhibitions at several places in the Malay States and Sumatra, and to see that implements sold are handled properly; also to furnish suggestions regarding any possible improvement to suit the requirements of these countries.

[Names and addresses of importers and wholesale merchants of Java can be seen at the Bureau of Manufactures.]

ISLAND OF JAVA.

PROGRESS IN PRODUCTION AND COMMERCE.

Consul B. S. Rairden, of Batavia, reports on the foreign trade of Java as follows:

The imports for 1905 show a value of $87,512,548; the exports $123,641,371, an increase of $4,373,054 in imports and $5,398,466 in exports over the previous year.

Automobiles are now used in the larger cities, where there are level

and fairly good roads. Importers of these machines employ experienced workmen so that all repairs are completed without delay, thus increasing the sales of the machines greatly. American machines were the favorite. Although the general importation of beer increased, the American article only held its own. American beer will never find a market here until prices are reduced so as to compete with the German and Dutch article, which sells for $5 a case of 48 bottles. Business in American bicycles has increased, and American boots and shoes have found a good market.

Australia has increased her business in Java greatly in canned goods, such imports amounting to $198,580, or more than three times the value of canned goods imported from the United States. The total imports of carriages and material amounted to $86,000, of which $20,000 worth came from Singapore.

INCREASED PURCHASES OF COTTON FABRICS.

The imports of cotton goods were valued at $17,900,562, an increase of $2,166,434 over the previous year. This colony is one of the best markets in the Far East for cotton goods, Great Britain supplying more than 50 per cent of this line. Conditions are practically the same in Java as in British India.

It would appear that American manufacturers of cotton should get a larger share of the business here, which could be accomplished if they would exert themselves to that end. It is astonishing to see to what trouble the European manufacturers will go to find out exactly what is required to suit the fancy of the people of this island. They are easily satisfied, but are always wanting something new. Cheap cotton material is wanted. The following comparative statement shows the value of cotton goods imported from different countries:

Countries.	Value, 1904.	Value, 1905.
United States	$4,360	$5,892
United Kingdom	5,981,182	8,837,962
Netherlands	7,343,960	7,631,056
Straits Settlements	1,982,803	743,597
Italy	276,301	494,934
Germany	75,469	92,645
France	19,208	23,285
Switzerland	81,148	39,140
Other countries	19,612	32,051
Total	15,734,128	17,900,562

The total imports of iron and steel work amounted to $3,079,160, a decrease of $572,290 from the previous year. The value of machinery of all kinds was $4,580,000. In spite of the strong competition in prices of this article, the imports from the United States showed an increase of $9,835 over the previous year.

AMERICAN SALES.

The imports of American petroleum amounted to 10,644,060 gallons, a decrease of 2,038,320 gallons compared with 1904. Russian oil decreased from 915,180 gallons in 1904 to nothing in 1905. Business in the local oil increased from 10,923,460 gallons in 1904 to 13,042,120 gallons in 1905. In the matter of tobacco, cigars and cigarettes, there were imported during the year $597,840 worth, of which the share of the United States amounted to $65,924, an increase of $19,473 over

the previous year. There was $246,000 worth of so-called Chinese tobacco imported which was manufactured into cigars and cigarettes. This tobacco was valued at 12 cents per pound.

The value of the imports from the United States amounted to $1,552,495, an increase of $122,238 over the previous year. The imports by articles are shown in the annexed table:

Articles.	Value.	Articles.	Value.
Automobiles	$20,922	Iron and steel, manufactures of	$59,617
Beer (in bottles)	8,400	Lamps	20,981
Bicycles	8,434	Leather and leather goods	2,989
Boots and shoes	1,245	Machinery	48,331
Canned goods	48,030	Meats, salted	5,097
Canvas	4,920	Oil:	
Carriages and material	10,750	Lubricating	60,000
Clocks and watches	3,483	Petroleum	900,511
Cotton goods (drills)	5,892	Paints	2,356
Copperware, etc	2,803	Resin	191,758
Cordage	3,420	Tobacco, cigars and cigarettes	65,924
Cutlery	1,026	Typewriters	6,311
Dry goods	6,424	Other articles	18,499
Drugs and medicines	2,232		
Flour	42,130	Total	1,552,495

The exports to the United States amounted to $25,029,830, a decrease of $2,743,354 from those of 1904. The principal articles were: Sugar, valued at $21,444,096; coffee, $1,537,900; kopek, $333,256; pepper, $300,181; bamboo hats, $148,881; benzine, $107,184; damar, $165,634, and tapioca flour, $100,305.

There are no discriminating laws in force here against foreign goods. No doubt the American cash system has done much harm to American trade, and as long as firms can get goods from European houses on credit they will continue to buy from that market.

At the close of 1905 the entire population of Java was estimated at 34,842,205, divided as follows: Europeans (including Eurasians), 75,833; Chinese, 537,316; Arabs, 27,400, and natives 34,201,656.

BRITISH NORTH BORNEO.

EXTENT OF FOREIGN TRADE—EXPORTS LEAD IMPORTS.

Consul Lester Maynard, of Sandaken, reports that the import trade of British North Borneo has not yet developed into large proportions.

The total imports in 1905 aggregated $2,395,683, of which about one-half were entered at the port of Sandaken. Exports, however, amounted to $4,308,977, consisting chiefly of tobacco worth $2,676,492, timber worth $528,528, dried and shell fish worth $180,487, rattan worth $189,317, and India rubber worth $101,214. Much of the tobacco and rattan exported from Borneo is eventually imported into the United States, the former from Amsterdam, the latter from Hongkong or Singapore. The tobacco is a high grade wrapper leaf, light in color, and of good flavor. Direct American importation of Borneo tobacco should prove more profitable than by indirect means, and the same can be said of rattan, all grades of which grow in Borneo.

Borneo's chief imports are cloth, rice, flour, grain, and canned goods. Some new business might be done in spirits, wines, and machinery. [A list of firms at Sandaken with whom Americans

might place agencies is given by the consul and filed at the Bureau of Manufactures.] The principal imports in 1905 were as follows:

Aerated waters	$43,284	Paints	$17,716
Building materials	22,404	Perfumery	8,639
Cloth	368,351	Provisions	182,363
Earthen and glass ware	18,997	Railroad and telegraph materials	33,510
Fruits and vegetables	18,606	Rice, flour, and grain	753,505
Furniture	24,074	Salt	24,873
Ironware	61,229	Spirits and wine	127,341
Kerosene	59,095	Stationery	21,370
Other oils	14,110	Sugar	94,044
Live stock	42,436	Tea	19,928
Machinery	38,105	Thread and yarns	24,987
Matches	11,870	Tobacco	98,787
Opium	$151,601		

Regarding mining ventures in Borneo, concerning which American inquiries have been received, it is well to state that the British North Borneo government made an agreement with the British Borneo Exploration Company granting the latter company the exclusive right, for a period of fifty years from February 28, 1905, to explore, prospect for, win, and work minerals in the territory of the chartered company, subject to certain conditions to insure the proper carrying out of the undertaking. Consequently anyone desiring to become interested in minerals in British North Borneo must do so with the knowledge and consent of the exploration company.

FRENCH INDO-CHINA.

REVIEW OF THE COLONY'S FOREIGN TRADE.

It has heretofore been difficult to secure full statistics covering the foreign trade of French Indo-China; hence there have been only references to fractional parts of the trade. Recently, however, a British consul was appointed for all French Indo-China, and his first report, covering the foreign trade of French Indo-China for 1905, shows the following imports and exports from and to the countries named:

Countries.	Imports.	Exports.
France	$22,637,200	$6,280,300
Hongkong	12,068,000	8,598,700
China and Japan	7,174,300	4,119,700
Singapore	2,823,400	1,754,500
Burmah and Siam	1,534,700	393,200
United Kingdom	688,300	242,400
Germany	267,200	86,600
All other	2,846,100	4,273,400
Total	50,039,200	25,748,800
Less reexports	9,950,100	
Net imports and exports	40,089,100	25,748,800

The foregoing exports cover only the products of French Indo-China. The exports to France cover France and her colonies. Of the imports from France, $500,000 represent products not of French origin. The imports into French Indo-China by articles during 1905 were as follows:

Cotton:	
Tissues	$4,488,400
Yarn	3,251,900
Liquors	3,030,400
Machinery	2,649,900
Tin	2,563,700
Iron and steel	1,969,000
Manufactures of metals not otherwise mentioned	2,811,700
Kerosene	1,889,500
Paper and manufactures thereof	1,677,100
Opium	1,322,100
Gunny bags	1,217,700
Silk goods	1,173,400
Rice	1,103,800
Flour	1,039,200
Coal	1,005,500
Gold leaf	988,900
Tobacco	984,000
Arms, powder, and ammunition	$831,800
Fruits and seeds	851,800
Raw cotton	802,100
Tea	613,000
Pottery and porcelain	524,300
Wearing apparel, of all kinds	442,400
Cement	366,000
Sugar	354,300
Coffee	314,400
Glass and crystal	310,000
Woolen goods	295,400
Copper	288,600
Boots and shoes	272,000
Preserved milk	253,500
Products of fisheries	249,700
Jewelry and watches	223,900
All other articles	9,879,200
Total	50,039,200

The articles composing the foregoing table were imported as follows, Cotton tissues, $4,000,000 from France, the balance from Hongkong: United Kingdom, Singapore, etc.; cotton yarns, nearly all of Indian manufacture, with a small lot of crochet and knitting yarn from France; liquors, about $2,225,000 from France, the balance from Singapore, Hongkong, Germany, China, Japan, United Kingdom, etc.; miscellaneous metal manufactures, $2,330,000 from France, the balance from various countries; of machinery over 93 per cent was from France, the balance from the United Kingdom, Germany, etc. A large American sewing-machine company, with a factory in the United Kingdom and another one on the Continent, is about to open a branch at Hanoi to push the sale of their goods, which are not American made.

Iron and steel may be called an entirely French import, those seeming to be almost closed to non-French exporters. Kerosene to the value of $1,889,500 was imported, of which $565,000 is credited to the United States, $400,000 to Hongkong, and $34,000 to Russia. The remainder is credited to "other Asiatic countries," mostly from Dutch India, however. The Standard Oil Company and the Asiatic Petroleum Company have establishments in Indo-China.

OTHER LINES OF IMPORT.

Flour was imported to the value of $1,039,000, of which $35,000 is credited to the United States, $460,000 to Hongkong, and the remainder to France and its colonies. Nearly all the flour imported from Hongkong was American. Tobacco, $984,000, of which 85 per cent is credited to France and its colonies; cigars and cigarettes constitute $300,000 of the total import. The imports of ginned cotton amounted to $802,000. Of this import, 1,000 tons were American cotton, received via Hongkong, valued at, say, $220,000.

Cement to the amount of 18,504 tons, valued at $366,000, was imported, of which over 88 per cent was from France, and nearly all the balance from Hongkong. Boots and shoes, $272,000, of which about $200,000 came from France, but of this $75,000 worth represented "foreign manufactures" exported from France.

Unlike British colonies, for instance, which have their own tariff laws covering imports from all countries, the French colonies are governed by the tariff laws of France, with insignificant exceptions. Hence, the

imports into all French colonies from France are free of duty, while the imports from all other countries are subject to the duties imposed by the French tariff—very high duties, and which discriminate against the United States. In return, all imports into France from French colonies are treated as French products and are entered free of duty.

While the United States has no place in the table showing the imports into French Indo-China from the several countries, a cursory review of the British consul's report, and making due allowance for the imports of American products via Hongkong, shows conclusively that the annual consumption of American products in French Indo-China must be, at the very least, $1,300,000.

CHINA.

MANCHURIAN TRADE.

SUGGESTIONS FOR MANUFACTURERS AND EXPORTERS.

Consul-General Willard D. Straight, writing from Mukden, reports as follows in relation to trade prospects in Manchuria:

Many inquiries have been received at this office regarding the prospective sale for various goods in this consular district, and frequent applications have been made for lists of firms engaged in particular forms of business with a view to forwarding advertising matter to the addresses furnished. While the desired data have been furnished and the catalogues placed on file, where they will be easily accessible to all who may desire to consult them, publications from the United States are, however, with rare exceptions printed in English alone; and inasmuch as the local merchants are unacquainted with any language save their own, the information placed at their disposal is of little practical value unless translations verbal or written are supplied through this office.

There are in the United States numerous commercial associations of which many of the inquiring firms are doubtless members. Should there be a general desire to engage in the Far Eastern trade, sporadic efforts to secure a mail-order business should be abandoned and a more direct method of communicating with the possible purchaser should be employed. Manchurian trade is still in its infancy, and the prospects for future increase are such that expenditures made with this end in view would undoubtedly be rewarded, if not by an immediate certainly by an ultimate return sufficient to attract American business men.

DIFFICULTIES TO BE OVERCOME.

The difficulties to be overcome are two-fold. Since it is not to be expected that the native dealers will learn English, those desirous of entering this field must place their information before the buying public in the Chinese language. As the prospective purchaser can not travel to the United States for himself he should be given an opportunity to make local examination. The Chinaman does not care to order articles which he has not seen. An illustrated catalogue may interest but it does not convince him, nor does he understand the undoubted advantages of the mail-order system. In the Occidental markets other methods may be successful, but in gaining a foothold in Manchuria

active representatives with samples of goods or exhibits of machinery will be able to secure results, while years of education in western business methods may be necessary before the native merchant will be tempted to engage in correspondence carried on at a distance of several thousand miles with firms with whose goods he is only acquainted through illustrated pamphlets.

The Japanese have realized the necessity for establishing intimate relations between the seller and consumer. Their large firms have agents in all the principal Manchurian cities, while under government auspices they have opened a commercial exhibition at Tiehling, and will shortly open another at Mukden, for the purpose of placing their goods directly before the public.

SUGGESTIONS FOR A COMMERCIAL BUREAU.

It would seem that it should be possible, in the light of the general interest in the Manchurian market which has been growing of late in the United States, for an association of American manufacturers and merchants to establish a commercial bureau in one of the central Manchurian cities, Kwanchengtse or Mukden, on the following general lines:

There should be a Chinese-speaking foreign superintendent and one or two assistants with similar qualifications who should continually travel in the interior. The former should command a salary of $400 per month and the assistants from $200 to $300. Ample provision should be made for suitable premises and necessary entertainment. Native translators should receive from $400 to $600 per annum. There should be placed on exhibition samples or specimens of goods or articles handled, and catalogues and other advertising matter printed in Chinese should be widely distributed. A small general subscription from those interested in establishing such an office would be sufficient to meet running expenses. Catalogues could be translated at a comparatively small expense, and on the payment of a small sum firms not connected with the original organization might be permitted to avail themselves of the services of such a bureau. The cost of advertising could be paid by the interested firms, who could eventually open up individual agencies if their sales were sufficient to warrant such a step. The initial consolidation of interests with an eventual appointment of special representatives would undoubtedly insure an increase of American trade in Manchuria, for under the direction of the present vice-regal administration chambers of commerce have been organized in all the principal Manchurian cities, and these bodies, composed of men from the intelligent Chinese commercial class, are anxious to develop both foreign and domestic trade and could be relied upon to encourage such an enterprise as described.

However, since some time would be required for the perfection of such a plan, if manufacturers or merchants who wish to bring their goods to the attention of the native dealers will forward catalogues to this office, and publishers of commercial journals will furnish copies for filing, they will be displayed or arranged in a Chinese reading-room, which it is hoped will eventually be opened when consular quarters are obtained. The matter has been discussed with the local Chamber of Commerce, who approve of the plan, and it will be thus possible to furnish them with data concerning any article which may interest them after reference to the catalogues.

METHODS FOR INCREASING PIECE-GOODS TRADE.

Consul-General Straight writes that a recent article in the local Japanese newspaper suggests the following measures for the extension in Manchuria of the market for Japanese piece goods:

First. The small piece-goods manufacturers should combine with a view to conducting this industry on a large and firm basis, and securing excellency and uniformity in the quality of their goods.

Second. The piece-goods dealers should confer with the manufacturers for the purpose of unifying as far as possible trade-marks, preventing ill-directed competition among themselves, establishing sound methods of conducting transactions, and uniting their efforts in firmly extending and establishing their market.

Third. The Japanese Government should grant their nationals importing piece goods into Manchuria a bounty equivalent to the amount of duty imposed thereon at the port of importation.

Fourth. The Government should encourage the establishment of low rates on commercial paper involved in transactions, as well as a decrease in the present transportation charges by rail as well as by water.

Fifth. The Government should arrange to supply spinning machinery at the lowest possible prices.

Sixth. The Government should encourage the establishment of a joint official and private inspection office for piece goods.

Mr. Straight adds: "According to this article the fourth measure has already been put into effect, and all that remains to be done to compete successfully with American piece goods, whose popularity is due to their superior quality and uniformity of trade-marks, and to establish an extensive market for the Japanese product in Manchuria, is the carrying out of the other measures proposed."

MINERAL RESOURCES.

DEPOSITS OF PRECIOUS MINERALS—ANNUAL OUTPUT.

The following summary of a report on the mines of Manchuria made by a representative of a Tokio newspaper is furnished by Consul-General Straight:

The northern part of Manchuria abounds in minerals, principally gold, both quartz and placer, silver, copper, lead, and iron. Thus far the average annual output has amounted to $10,000,000, some of the mines being operated by the Chinese officials, but most of them by native companies and small capitalists. A large part of the deposits has not yet been touched. Gold exists in both quartz and placer form. The number of deposits thus far discovered are as follows: Gold quartz, 11; placer gold, 8; silver, 7; coal, 9; iron, 4; asbestos, 2; and copper, lead, and silver, 1 each. [A list of these and their location is on file at the Bureau of Manufactures.]

Besides these, the territory drained by the Huifaho and to the north of that river is exceedingly rich in gold, both quartz and placer, silver, lead, copper, and coal. This is true also of the district to the east of the Tunghuachiang (Sungari River). This mineral wealth is made accessible by the Yalu, Tunghuachiang (Sungari), Nenchiang, Hailungchiang, and Liao rivers and their tributaries. The construction of the Changchun-Lirin Railway will also greatly facilitate the development. The operation of the mine at Tienpaosan was about to be undertaken by Americans, but the project was abandoned on account of the outbreak of the Russo-Japanese war. The viceroy of Kirin then canceled their claim, and the mine is now being operated by the Bureau of Mines of Hunchung with Chinese capital. The same is true of the gold mine

at Chiapikou, which was originally operated by the Russian Government, 20,000 coolies being employed, but is now in the hands of Chinese.

SOUTHEASTERN MANCHURIA.

COMMERCIAL PROSPECTS THROUGH OPENING OF NEW RAILROAD.

A lengthy report from Vice-Consul-General Charles J. Arnell, of Mukden, deals with the completion of the new Japanese railroad from Antung on the Korean border to Mukden, and the prospective industrial and commercial development of the southeastern Shenking Province, through which the new line passes. A summary of the report follows:

The new Japanese railway from Antung to Mukden, a distance of 187 miles (100 as the crow flies), first constructed lightly for military purposes, has been rebuilt, though no tunneling will probably be done until the survey of the permanent railway has been made. The gage is 2½ feet. The rails and rolling stock were supplied by the Baldwin Locomotive Works. The system consists of 150 locomotives, and the two sizes of open freight cars carry two and five tons, respectively, the total carrying capacity at present being only 1,200 tons.

OPERATIONS OF RAILROAD.

The greater part of the freight handled consists of railway supplies. The amount of general goods carried is almost too small to be considered, and the supposition that the absence of a custom-house at Antung has been taken advantage of to ship large quantities of merchandise into the region made accessible by this railway is not borne out by the actual conditions. The rate, 10 sen (5 cents) a ton per mile, for most commodities is almost prohibitive.

The standard-gage railway to connect Antung with Mukden, it is expected, will follow the same general course as the present one. Since its completion, however, will probably require the larger part of three years, the new South Manchurian Railway Company, which has just taken over the system, is to continue the operation of the present line and will undoubtedly carry on improvements. With its present narrow gage, however, this railway, even when worked to its utmost limit, can give no more than a very small stimulus to the mineral, agricultural, industrial, or commercial development of the region which it traverses.

MINERAL WEALTH.

Southeastern Shenking is said to be unusually rich in minerals. The mountains contain abundant deposits of coal, iron, copper, lead, silver, and gold. The working of all these deposits has for a long time been more or less regularly carried on by the natives; their methods, however, are of the crudest and the output consequently small. Granite is also quarried, and is known to be of excellent quality; but as yet it has been little utilized, except for local purposes, owing to lack of transportation facilities.

The coal thus far unearthed has been found to be a superior grade of anthracite, and its utilization only awaits capital and the means of bringing it to the market. One of the largest carboniferous beds yet discovered in this region, and till recently scarcely touched, lies near Penshihu (Honkeiko), an important station on the Antung-Mukden

railway. Its development on a somewhat extensive scale was first undertaken by the Chinese in the latter part of 1903, with the result that some fourteen pits were opened. There is another large bed of coal at Niutan, a short distance to the southeast, where about 1,000 coolies were formerly employed in digging, most of the output being sold to the Russians.

The Okuragumi, a Japanese concern, a year ago obtained permission from the Chinese Government to work a mine near Penshihu. They have hardly commenced operations, the entire output thus far not exceeding 300 tons, but intend at an early date to use some $100,000 in the construction of shafts and other improvements. The coal is said to be of the best quality, and that taken out so far has been sold to the Japanese Government for use at its iron foundries. The Okuragumi plans in the near future to establish a gas plant at Mukden, and the coal mined here will be employed in this connection.

MINING CONDITIONS UNPROFITABLE.

Silver has been found chiefly at Antung and Fenghuangchen near the Yalu River and was at one time mined by the Chinese; but the work was abandoned owing to the large lawless element which existed among the coolies and which made operation both unsafe and unprofitable. Thus far the iron wealth seems practically to have lain untouched by the pick. Desultory attempts have been made by the Chinese to utilize it, but the limited returns on the capital invested, the fault of crude methods, as well as the difficulty of bringing the product to market, have made it impossible for the virgin article to hold its own against the old scrap iron entering the country from Newchwang.

Most of the minerals named are said to be present in large and paying quantities, and their utilization only awaits a cheaper and quicker outlet. The investment of capital in the development of these resources, however, will hardly be attractive to the foreigner, unless the Chinese Government mitigates its present restrictions on the mining industry.

AGRICULTURAL DEVELOPMENT.

Agriculturally southeastern Shenking stands far from the head of the list, as compared with other parts of Manchuria, both in relative arable area and in fertility of soil. The principal products are maize, millet, and beans, and these seem to do scarcely more than supply the local demand, as none of them, except a small quantity of beans in the form of oil and cakes, ever reaches the seaboard for export.

The export trade in bean cake here is in the hands of a Japanese firm, the Mitsui Bussan Kaisha, which buys up the total output of the four principal Chinese companies in Antung, the monthly figure averaging some 8,000 cakes. The manufactured bean products exported from Newchwang derived from this region are small.

The total production of hemp, tobacco, and indigo, products of southeastern Shenking, compared with those in other parts of Manchuria is inferior and quite small. The opium poppy is said to be grown here to a limited extent. Whatever part of these products reaches a foreign market passes principally through Antung and Newchwang. It is doubtful that any great stimulus can be given in this region to these industries.

Practically all of the arable land is already under cultivation. The valleys do not contain an untilled spot, and many of the mountain

slopes, where the surface soil is scarcely more than a foot in depth, are covered with small plats, ending only with the summits and reminding one of the "box gardening" characteristic of Japan.

WILD SILK.

"Wild silk," a product peculiar to this region, should be described as animal rather than agricultural. It is produced by *Antheræa pernyi*, which depends for its sustenance on Mongolian oak leaves. The climatic and physical conditions in this part of Manchuria are said to be almost ideal for the cultivation of the cocoon, and, while its products already rank second in importance only to bean oil and bean cake among the exports of Shenking, the industry offers opportunity for greater expansion. The chief centers of trade are Haicheng, Hsiuyen, and Kaiping on the west and Antung and Kuantien on the east. The annual production for the past few years is said to have averaged 15,000,000 cocoons. Of this number 2,000,000 to 3,000,000 generally find their way to Chuangho, Antung, and Takushan, whence they are shipped to Shantung, and made into the well-known pongee of that province. The remainder supplies the markets of Kaiping and Haicheng, where it is turned into thread. The former is the great center of the reeling industry, with an annual output of about 8,000 piculs (picul=133⅓ pounds) of the manufactured product, the latter place supplying only some 1,000 piculs.

The price of the reeled silk rises and falls with changes in the seasons as well as in the demand. The silk exchange at Shanghai, where the larger part of the product is sent, is probably the chief regulator of the market prices. They are also said to rise just before the opening of the rivers to navigation, and to fall just before their closing. The following figures from the Newchwang customs fairly represent the annual export of silk from that port:

	Piculs.	Haikwan taels.	American equivalent.
Reeled silk	6,343	809,636	$648,518
Silk waste	2,271	66,738	53,457
Cocoons	27	917	735
Total	8,641	877,291	702,710

The average price per picul of reeled silk is seen to be about 100 Haikwan taels ($80, a tael being figured at 80 cents, its value in October, 1906. The value of the tael, however, went up to 85 cents on January 1, 1907.) While already large, railway facilities would undoubtedly tend to extend this industry, especially in the regions more remote from the centers of the trade.

STOCK FARMING.

Another industry of importance and possible expansion in this part of Manchuria is stock farming. While the conditions are not ideal, owing to the uneven seasonal distribution of rainfall and the hilly character of the country, yet they compare favorably with those in other parts of Manchuria, and the mountain sides could probably be more profitably employed as pastures for goats, sheep, and neat cattle than for agricultural purposes. At present, breeders are content with supplying merely their own wants; but the inauguration of trans-

portation facilities, coupled with the proximity of the region to the seaboard, might encourage them to undertake this industry on a large scale and place southeastern Shenking in the front rank as a purveyor of beef and mutton to the markets of Japan, China, and possibly the Philippines.

TRADE IN HARBIN REGION.

EFFORTS ON THE PART OF AMERICANS URGED.

Consul F. D. Fisher, of Harbin, reporting on existing conditions in and about his consular district, points out the failure of the Russians to secure a permanent position in Manchurian markets. He writes:

Since the evacuation of the Russian army from Manchuria was completed, excepting some 50,000 or 60,000 troops, about the first of last August, trade in Harbin has suffered a very severe depression. An enormous business had been conducted for the last two years on a basis of war prices. At the time of the conclusion of the Portsmouth treaty the merchants of Harbin did not evidently give much credence to Russia's intention to withdraw her troops at once, as they continued to increase their stocks, even after the evacuation was under way. As a result, most of the Russian stores are now carrying enormous stocks, much of which is unmarketable, or at least the demand is greatly limited in Harbin under the changed conditions. One merchant has a stock of 1,500,000 roubles (rouble 51.5 cents) of clothing. Part of these goods was bought on credit, which, paid when due, with a collapse of the market, created a scarcity of money in Harbin, and, to some extent, throughout North Manchuria.

CURTAILED RUSSIAN TRADE.

Since the commencement of the Manchurian railway scheme, Russian merchants have made little or no energetic efforts to establish a permanent trade with the Chinese of North Manchuria. Such efforts as have been made in that line were conducted by the Eastern Chinese Railway Company and the Russo-Chinese Bank, and they seem to have met with only nominal success. The consequence is, so far as the Chinese trade is concerned, that Russian commercial interests have received but little benefits from the predominating influence that Russia has held over this portion of Manchuria for the past ten years. The only items of Russian manufacture, having a market of any consequence among the Chinese here, are kerosene oil, matches, sugar, and some cotton goods. The Russian merchants here seem to have been satisfied with such business as the railway company and the army have thrown to them, which has given enormous profits, and they have probably dealt as much in foreign goods as Russian. Nor have any extensive industrial enterprises been undertaken by the Russians that have not relied upon the railway company or the army for their existence. Now, with the bulk of the army withdrawn and the balance soon to follow, and the Eastern Chinese Railway Company endeavoring to reduce its expenses to keep them within some comparison with its earnings, the trade outlook for the merchants, whose capital is tied up in enormous stocks, chiefly unsuitable for the Chinese trade, is not very flattering. There has been a lack of permanency in the commercial element of Harbin, and the largest portion of the profits have been transferred to Europe as they have accumulated. Such as have

been invested here are chiefly in buildings, on which merchants now find it impossible to obtain loans on reasonable terms. As the Russo-Chinese Bank is the only European banking institution here it is enabled to fix it own rates. No doubt it has also felt the depression very seriously on account of the decline in values of securities for loans as well as the falling off of ordinary banking transactions.

OPPORTUNITY FOR AMERICAN GOODS.

While the collapse of the Harbin Russian market will reduce the sale here of certain classes of American goods, chiefly provisions, the prospects for markets for other classes of goods are by no means discouraging. There is now a fair demand which will increase, for piece goods, ordinary agricultural implements, clocks, sewing machines, and the various other classes of goods required by a growing population of Chinese—now estimated at 10,000,000 north of Kwanchengtze—in a fertile agricultural country, the development of which will no doubt be rapid. These markets should be sought with the intention of making them permanent; that is, the same careful consideration should be given to the peculiar requirements as is given to our home trade; the profits should be reasonable, and the goods should be furnished as ordered without substitution and well packed, as they will probably receive some rough handling before they reach Harbin. I am well aware that these points are oft repeated, but so long as British, German, and other European manufacturers observe them American manufacturers must do likewise if they expect to compete successfully.

It is indeed gratifying and complimentary to our manufacturers, whose goods have reached this market, that American goods enjoy a high reputation here. Their superior qualities seem to be unquestioned, although the prices are often high. The Chinese, however, usually give much consideration to initial cost.

COMPETENT AGENTS NEEDED TO SECURE TRADE.

In order that our trade should secure permanency in this market, it is advisable, where conditions warrant, that the sale of our goods should be in the hands of competent agents or representatives who are Americans and understand their goods. Under such methods our manufacturers would acquire a more accurate knowledge of the conditions of their trade here and its requirements, sales would be pushed more energetically, and many abuses would be checked. A foreigner will undertake the sale of American goods only when he can secure larger profits than from goods made in his own country. When the profits are about equal the trade goes to his own. In many cases, where the sale of American goods is intrusted to foreign commission houses, the prices are used as a scale to adjust the prices of goods of other foreign make. Under such conditions it is only our special bargain counters that get fair consideration. In the trade here, the disadvantage is apparent of having to deal through foreign houses that can not conveniently correspond in English, and whose business methods differ greatly from ours, in order to reach the Chinese trade.

The present time appears to be exceptionally opportune for American exporters to give this market special attention. The dealers here obtain a large part of their goods through Shanghai. With a direct steamship service from San Francisco to Vladivostok, there would be a considerable saving in direct trade relations should shipping facilities

be more extensively established. The Eastern Chinese Railway Company's tariff of freight rates between Vladivostok and Harbin is now under revision. As soon as the new rates are made known, they will be forwarded to the Department.

TSINGTAU.

AN IMPORTANT PORT IN GERMAN LEASED TERRITORY.

Consul W. T. Gracey, of Tsingtau, reports concerning conditions in his consular district, as follows:

Notwithstanding the fact that Tsingtau has been opened to the commerce of the world for over eight years, during which time it has been made one of the most modern cities of the Far East, still it is hardly known in the United States, and even when spoken of it is invariably under the erroneous title of "Kiaochow." Tsingtau, which literally means "Green Island," was originally the name of a small island in Kiaochow Bay, but was transferred to the mainland when the place was taken possession of by the German troops in 1898. By the treaty of March 6, 1898, Germany leased the territory from China for a period of ninety-nine years.

The district extends for fifty kilometers (kilometer 0.62 of a mile) beyond Tsingtau. Grants to Germany of monopolies for the chief railways and mining interests in Shantung were made in the same treaty. Situated in the Yellow Sea, in a latitude corresponding to the southern Azores, Gibraltar, Malta, Tokyo, and San Francisco, the climate is equable. Besides, its central position makes it a convenient point between Shanghai, Nagasaki, Japan, and Korea. The shipping facilities are excellent, and mails are received and dispatched almost daily to all parts of the world.

The Shantung Railway is now completed as far as Chinanfu, or Tsinanfu, as it is called by the Germans. The railway is a single pair of lines with a normal gauge of 1,435 meters. Sidings at Tsingtau connect the main lines with the piers, so that shipments by incoming steamers can be easily transported directly to Tsinanfu.

TRAFFIC, MINES, AND CUSTOMS.

Having solved the problem of transportation between these important cities of the interior, the railway company is now using its best efforts to attract passengers and cargo from the neighborhood of the line. By a customs regulation the custom control of railway traffic outside of the free-port territory and of the frontier traffic ceased; merchandise leaving the free-port territory, with certain exceptions, pays import duty according to the general treaty tariff, and is then free to go anywhere into the hinterland without restriction. The colonial government receives, as a contribution to the expenses of the territory, 20 per cent of the import duties, the amount being subject to revision every five years. This long-looked-for event practically removed all restriction to trade with the interior. The railway traffic has received a fresh impetus, and the line, which has begun to pay, bids fair to become a lucrative investment as well as a boon to the country. The income from the railway now amounts to about $3,500 gold per day.

The Shantung Mining Company, which is under the same management as the railways, owns mining areas on both sides of the railway within the 10-mile zone, and coal mines, both at Fang tsy and Po shan, are in working order. There are also iron mines at Tchiu-ling-chen, where ore is found with 64 per cent of iron, combined with diorite and Cambrian or Silurian chalk in great quantities.

The Kiaochow custom-house, a branch office of the Chinese imperial customs service, controls the commerce of the territory around the bay of Kiaochow and neighboring ports. Duties are levied according to the regular foreign customs tariff. Goods destined for the interior pay duty at Tsingtau; those of foreign origin pay full tariff duty; and those of native origin, coming from treaty ports and covered by customs documents, pay coast-trade duties. The dues on produce carried by junks is fixed at about half the foreign rates.

COMMERCIAL OUTLOOK.

The commercial prospects appear to point to a good future. The local trade which Tsingtau hoped to attract was formerly conducted between the old inter-bay junk ports Taputao, Nuko, and Tsangkou, and the two district cities of Kiaochow and Chi-mo, and was not inconsiderable. A great part of this has already been diverted to Tsingtau, and as the railway traffic increases and the people of the interior become better acquainted with the foreign methods of transportation and the safety of this new way, there seems little doubt but that a large percentage will eventually flow toward Tsingtau. Previous to the opening of the custom-house in 1899 this trade, which was valued at $2,190,000 gold, was almost exclusively Chinese, consisting of goods transported by junks between Chinese ports for Chinese merchants, and was confined to the narrow lowland belt surrounding the bay and conducted under many and great disadvantages. Foreign goods and foreign vessels had no share in the commerce. Cotton cloth, cotton yarn and kerosene oil were out of reach of the multitude, and have made their appearance on the local markets only since the arrival of steamers at Tsingtau.

DEMAND FOR FOREIGN GOODS.

The advent of the foreigner has changed all this and is bringing work and wealth to the people, and has created a demand for foreign goods and benefited Tsingtau and its foreign merchants thereby. There seems little doubt that increased prosperity and buying power has set in. Instead of the usual raw cotton considerable quantities of cotton yarn and cotton cloth have been imported and have found a ready market, while kerosene oil during the past few years has been in such great demand that at times it could not be supplied.

Three of the special products which the railway has brought to Tsingtau are coal, straw braid, and silk. Silk is gradually being diverted to Tsingtau, but not to the extent that was first predicted. Almost 50 per cent of the straw-braid trade has been diverted already to the Tsingtau markets, and there is reason to believe that within the next few years the entire output of straw braid from this province will be shipped through Tsingtau. Of foreign products, an increasing demand is being shown for cotton and woolen goods—especially the former—brass buttons, aniline dyes, matches, needles, kerosene oil, and white and brown sugar.

ANOTHER OPEN DOOR.

NAN-NING TO BECOME A FOREIGN SETTLEMENT.

Minister Rockhill, of Peking, reports that the Chinese Government had made arrangements for the establishment of the Imperial Maritime Customs at Nan-ning on January 1, 1907. Nan-ning is not a place of great importance. It lies far inland, on the southern branch of the West River, and on the old through-trade route from Hongkong and Canton to Yunnan. Mr. F. S. A. Bourne, of the British consular service, in his report of the China Mission of the Blackburn Chamber of Commerce (1896–97), says: "After Wuchow come Nanning and Linchow in commercial importance, and I believe that both these places might be reached by light-draft steamers from Wuchow by slight expense in improving the channel. A great part of the traffic in more valuable commodities goes by carrying cooly to escape likin—a costly means of conveyance, adding greatly to the price of our imports."

TRADE COMPETITION.

INACTIVITY OF AMERICAN FIRMS.

Consul Thornwell Haynes, of Nankin, advises that the following item appears in one of the Shanghai dailies:

"It is of interest to note that the contract for lighting by electricity the native city of Hankow has been secured in open competition by Messrs. Poole, Lauder & Co. The successful contractors, who are also engaged in lighting the native city of Swatow, are essentially a British firm, backed by British manufacturers." On this the consul comments: "And still American firms continue to send out their circulars."

JAPAN.

NEW ENTERPRISES.

FORMATION OF NEW AND ENLARGEMENT OF OLD COMPANIES.

Consul-General H. B. Miller, of Yokohama, under date of January 12, reports that according to the investigations made by the Tokio Shiogyo Koshinjo (Tokio Mercantile Agency) the number of new banks and companies which have finished registration since July, 1905, totalled 1,873.

The capital of these concerns aggregate $139,457,000, of which $47,904,500 has so far been paid up. Tokio takes the lead in the prefectures in which these enterprises are promoted, with a subscribed capital of $102,457,500. The new banks and companies which have been formally organized or under project since July, 1905, altogether number 260, the amount of capital involved aggregating $248,796,500. Classified they are as follows:

	No.	Capital.		No.	Capital.
Banks	3	$750,000	Match manufacture	3	$7,500,000
Railways	12	14,825,000	Fishery and marine produce.	8	3,700,000
Tramways, light ways, etc	11	4,337,500	Bean-cake and flour	9	9,000,000
Electric railways	52	55,825,000	Warehousing	7	2,750,000
Hydro-electric enterprises	31	27,375,000	Trust business	2	600,000
Other electric enterprises	10	22,336,500	Brick and cement	7	37,875,000
Spinning	11	11,100,000	Paper mills	3	800,000
Insurance	6	8,600,000	Others	70	27,822,500
Fertilizers	7	2,700,000			
Sugar refining	5	7,500,000	Total	260	248,896,500
Cold storage	3	3,500,000			

Of the foregoing, 55 companies have already made calls on shares or are now making call, the total amount of the capital of these companies being $29,225,000. The number of the old companies, which have completed registration as to the increase of capital during the same interval, is 265, in which a total capital of $47,141,500 is involved, of which $20,898,000 has so far been paid up.

Besides these there are 62 companies which have under contemplation the increase of their capital which, when carried out, will aggregate $49,327,500. Again, 19 companies have issued debentures during the same period amounting in all to $16,498,000, of which foreign capital is said to be interested to the extent of $9,767,000.

PERSIA.

LAST YEAR'S COMMERCE.

THE IMPORTS AND EXPORTS—A NEW TRADE ROUTE.

The "Indépendance Belge," of Brussels, gives the total foreign trade of Persia as amounting to $60,130,474 for the fiscal year ended March 20, 1906, as against $51,292,910 in 1905, $56,607,128 in 1904, and $41,496,646 in 1903. The decline in the trade for 1905 was due to a serious cholera epidemic and the adverse influence of the Russo-Japanese war. The tariff act of Persia went into effect on February 14, 1903. The following statement shows the foreign trade of Persia for the last two fiscal years of the new tariff compared with the last year of the old act:

Countries.	Imports.			Exports.		
	1903.	1905.	1906.	1903.	1905.	1906.
United States	$24,333	$126,529	$25,000	$97,380	$29,199	$14,600
Russia	11,008,023	14,258,845	17,193,345	11,144,285	12,380,376	17,470,735
British Empire	9,294,882	9,634,723	10,427,963	1,688,676	2,311,588	2,301,856
France	1,630,278	1,435,618	1,727,608	841,905	944,101	1,148,494
Austria	987,900	895,436	1,167,960			
Turkey	812,706	900,303	1,265,290	1,820,071	3,338,419	3,873,734
Germany	262,791	554,781	588,847	9,733	29,199	43,799
Other countries	1,075,628	1,548,493	1,796,683	798,000	2,905,300	1,085,228
Total	25,096,541	29,354,728	34,192,696	16,400,105	21,938,182	25,938,445

PROVINCE OF AZERBAIJAN.

A detailed statement of the foreign trade of Azerbaijan, Province of Persia, of which Tabriz is the chief city, is made by the British consul, from whose report the following abstract is taken:

The total foreign trade for the fiscal year ended March 20, 1906, amounted to $11,152,359, of which $6,682,177 were imports and $4,470,182 were exports. This is a decrease of $105,520 in imports and of $34,806 in exports from 1905. The leading articles of import were: Cotton yarns, thread, and tissues, valued at $2,109,468; sugar, $1,558,015; tea, $526,619; woolen tissues, $703,939; fancy goods, $179,311; petroleum, $119,020; clothing, $57,931; iron, and manufactures of, $109,978; furniture, $56,598; and glassware, $54,048.

The principal articles of import—cotton and woolen piece goods, sugar and tea—show but little fluctuation, and the figures for the year represent about the normal requirements of Azerbaijan now that the enormous accumulations, particularly of cotton tissues, which were recklessly imported from Russia in previous years, have been worked off. During the latter part of 1905 there was a dearth of cotton goods on the market, and prices rose considerably, which enabled accumulations to be disposed of at a considerable profit. But the deficiencies from Russia were soon made up by increased imports from other countries, principally the United Kingdom, and prices readjusted themselves. The value of woolen tissue imports has fallen steadily for the last three years at the rate of about $97,000 a year.

DIVISION OF TRADE—NEW TRANSPORTATION METHODS.

Of the imports into the province in 1906, Russia furnished articles worth $3,351,612; British Empire, $1,492,015; France, $634,193; Austria-Hungary, $404,222; Italy, $318,255; Turkey, $219,343; Germany, $209,162; and other countries, $53,376. The imports of cotton and woolen tissues were distributed as follows: British Empire, cotton tissues worth $552,586 and woolen tissues $362,530; Russia, cotton tissues $1,104,335; France, cotton tissues $114,996 and woolen tissues $158,755; and Austria-Hungary, cotton tissues $43,555 and woolen tissues $83,909.

Of the $4,470,182 exports, Russia took articles worth $2,560,207 and Turkey $1,893,775, the latter made up mainly of carpets which are sent to Constantinople for distribution to other parts of the world. The direct exports to other countries amount only to $14,600. The principal articles of export were: Carpets, valued at $1,856,220; dried fruit, $1,360,898; skins and hides, $244,809; raw cotton, $128,904; live animals, $176,756; woolen stuffs, $223,047; and silk, $94,717.

The Russian road from Julfa to Tabriz is now practically completed. The convenience it affords to travelers by carriage is very great, and as wheeled transport gradually replaces camel transport for goods arriving from Russia by this route, trade with Russia should benefit considerably. It is already found that a cart drawn by two oxen can bring six camel loads from Julfa to Tabriz for less than the cost of traveling with one camel and nearly as quickly. But this advantage is of little moment in comparison with the benefit which will result to Russian trade when the railway reaches Julfa, as it is expected to do during the winter. Russian manufactures will then reach the Persian frontier entirely by rail, and will be within 80 miles of the market at Tabriz.

AFRICA.

NORTH AFRICA.

MOROCCO.

PRESENT ADVANTAGES AND FUTURE POSSIBILITIES.

Mr. Frank G. Carpenter has made an interesting report of his observations in Morocco, which was published recently in various newspapers. The report is devoted to trade conditions in that relatively unknown country, and business men will find in it much information of value.

Mr. Carpenter believes that following the final determination of certain questions by the European Powers every country will be sending trade representatives to Morocco. The British, French, and Germans have already their representatives, who are active for their respective commercial interests. The methods followed will be inferred from Mr. Carpenter's description. He writes: I met here a white-faced, blonde-bearded man, dressed in full Moorish costume, who was talking Arabic, and who I found could recite the Koran from beginning to end. He turned out to be a German in the employ of commercial organizations, and his business is to gather data for the pushing of German goods. He has traveled as a Moor through all the coast towns, and has gone inland from Mogador to Morocco City and from there to Fez. He has full information about the patterns of the cottons and other goods most desired here, and the Germans will be soon making haicks, burnouses, djellabas and the other dresses of these people.

VALUE OF PRESENT TRADE.

At Tangier I had a talk with Mr. Hoffman Philip, American consul-general, as to the trade of Morocco. He has represented our country here very efficiently for the past four years, and has done what he could to push American trade. He has been hampered, however, by the ignorance of our exporters concerning the country and people, and the disadvantage of the United States having no direct steamship connection with this part of the continent. We have several vessels a week which call at Gibraltar, over the way, but none of these stop at Tangier. We are buying a large amount of goatskins of Morocco, but about the only thing which she is using directly from us is coal oil. Her people dress largely in cottons, and their goods are made of our raw materials, which are shipped in the bale to England and there manufactured for this trade. During some years we pay as much as a half million dollars to Morocco. In 1905 we bought from her about four hundred and fifty thousand dollars' worth of goatskins, and we take some of her wool and fruits, which go via England. "The total

trade of Morocco," said Mr. Philip, "now amounts to something like $20,000,000 a year, and of this England gets more than half, France comes next, and then Spain and Germany. The German trade is still small, but it is rapidly gaining."

I made a hunt through the bazaars at Tangier for American goods, and among other places visited the largest fancy grocery store in Tangier. I told the clerk to show me samples of all the American articles he had, and he brought out coal oil, corned beef, corn meal, and cocktails. The bottles of cocktails came from New York, the corn meal was in a pasteboard package labeled Chicago, and the coal oil in a square can from Philadelphia, while the corned beef was in a flat tin box from Kansas City. At another store I saw canned salmon from Seattle and pickles from Boston. All of these goods came via London.

GOODS NOT WANTED BY MOORS.

It is useless for our exporters to attempt to make a market in Morocco without sending men here to study the people. This country is as different from the United States as would be the lands of the Arabian Nights. Drummers who speak Spanish or French should be sent to travel among the people and report the kinds and patterns of goods desired. They can hire guides who will interpret for them with the Moorish merchants, and they will find many Jewish traders who speak French and Spanish.

Let me tell you, for instance, of a few things which it would be ridiculous to send to Morocco. The American shoe is popular almost everywhere, and it is fast capturing Europe. It could do nothing here. These men want a loose slipper of soft leather with a heel that can be bent over. They take their shoes off, as a usual thing, when they enter their homes, and they never wear them inside the churches or mosques. The black of the American shoe would look out of place, for every Moorish gentleman likes a delicate pale yellow. As to the women, they wear red slippers of soft Morocco leather, and the better classes of them have their footwear embroidered with gold and silver. In the house most of the girls go barefooted, and no one wears a French heel. Indeed, heels are worn on no shoes here, and even fine Morocco boots are heelless. All the footwear is handmade, and that made in Fez is sent to different parts of the country.

The Moors do not want stockings. Of the 10,000,000 inhabitants of this country, 9,500,000 have never heard of them, and I venture there are not 10,000 women in the whole empire who clothe their legs in that way. Only the very well-to-do put them on upon occasions, and such persons are the Moors who have been affected by foreign influences.

Our hat makers need not send their wares. These people use turbans, with skullcaps under them to cover their smoothly shaved scalps, and they sometimes pull the hoods of their gowns over their heads in addition. The Jews wear caps of black felt, which fit close, and the Jewish women wrap their heads in silk handkerchiefs.

CHANCE FOR AMERICAN FLOUR.

At present there might be a small sale for American flour if it were shipped in such packages that it could be carried by mules over the country. Morocco has some of the best wheat soil of the world, and if it had a government like ours it would be competing with our country in the bread markets of England. At present most of the

grain is consumed in the localities where it is raised, and the agricultural methods are so rude that it is high priced, notwithstanding the low wages. Farm hands get about 10 cents a day and they board themselves. The plowing is done with a crooked stick by means of oxen, mules, donkeys, or camels. The pitchforks are crotched sticks, sharpened at the ends. Shovels and spades are unknown. A Moorish plow costs about 50 cents, an ox yoke 15 cents, and the rude hoe which is commonly employed 12 cents. The grain is carried from many localities on the backs of camels in long bags made of palmetto leaves. One such bag will hold 10 bushels and form a fair load for a camel. In Tangier the grain is transported by donkeys from one part of the town to the other in 4-bushel bags. Two bags are a good load for a donkey.

MODERN MACHINERY UNKNOWN.

The Morocco of to-day offers few opportunities for the sale of American machinery. As to farm implements, the people are too poor to buy anything that costs much. The country is divided up into an infinite number of small holdings, and all outside the officials and chiefs and merchants live from hand to mouth. The taxgatherers also attempt to collect one-tenth of all crops. Labor here is backward as in the days of the middle ages. All over Morocco logs are sawed into boards by hand, and thrashing is done upon well-pounded floors with flails or by treading the grain out with horses, cattle, or mules. It would be impossible to carry a thrashing machine through the country for the lack of roads, and in many localities it would be difficult to supply the fuel to run it.

Saddles and harness, such as we have, are in no demand, and the hardware used is of the cheapest home-made variety. There are some sewing machines in use, but the favorites ones are those run by hand. There is some sale for mirrors, darning needles, and sewing needles. These, as well as nails and wire, are now sent in by the Germans. Much of the Moroccan earthenware is homemade. Some china is imported, and also many of the drinking glasses in which tea is served.

It will be a long time before the ordinary Moroccan will want American furniture. The poorer classes sleep on the floor, and they are so hardy that a man will wrap himself in his gown and lie down anywhere for a snooze. There are men sleeping on the stones out in the streets here every night, and that by the hundreds. Many houses are guarded in this way. Spring beds are unknown to such people, and they seldom have chairs. When sitting they do not hang their legs down, but double up their legs under them or lean back against the wall, with their long beards resting on their knees. If they use a bench or divan it is to sit cross-legged upon it. The tables are rude and are often simply low, round, brass pans upon legs. Some such are beautifully carved. Candles are in demand, and the British are now sending almost a quarter of a million dollars' worth of them to Tangier every year.

EGYPT.

PRICES MAKE FURTHER ADVANCES—INCREASED REVENUES.

In a letter from Cairo, Consul-General Lewis Morris Iddings states that the prosperity of Egypt continues and increases. He writes:

In the report from this agency a year ago it was said that in the opinion of many the great speculation in shares and in land had about

reached its height. This does not seem to be the case. No cr sh, not even a reaction, has come. Prices for the staple products of Egypt have steadily risen, a splendid crop was obtained, the Nile flood was at its most useful height, and nothing is heard of on any side but prosperity.

In October, 1905, the house used as the American agency was sold for $125,000, giving the seller $30,000 profit; in November it was sold for $180,000, and the owner in the fall of 1906 refused $250,000. A small house on a small lot across the street sold in April, 1906, for $60,000; in October the owner refused $90,000, asking $100,000. Land in Ghizereh, offered last spring at $50 per square meter, now sells at $65. A house there, for which the owner last spring hoped he might get $125,000, has since brought $160,000.

Land in the city in the business quarter has risen within a year from £9 (£=$4.86) and £17 to £30 and £55, respectively, per square meter, and is still rising. It brings in choicest pieces $455 per square meter. It was at this price that the land on which the Eastern Telegraph Company's office stands was sold recently. It must be remembered also that for five months in the year at least Cairo is a dead city, no one staying to endure the heat who can possibly get away, and during that time little or no business doing.

STOCKS RISING—MONEY DEAR.

Another extraordinary feature of the situation is that the stock market for cotton, for shares in land, and building companies, is strong and higher, though the money market is very tight. The rate of interest on call money is from 50 to 60 per cent and hard to get; but no crash comes, and "bull" speculation is rife. Over four millions sterling (nearly $20,000,000) were sent from London last October, but it has all been absorbed and left no trace. The sellers of the cotton crop are said to have the money hoarded in their houses. The gold-beaters' bazaar is crowded all the time, and it is estimated that each week many pounds in gold coin are melted or beaten into bracelets, necklaces, and chains. That gold is always hoarded in Egypt is curiously proved by the fact that some George III sovereigns are coming into circulation. How long this era of prosperity and speculation will last it is impossible to say, since Egypt is a land of paradoxes. People who predicted a reaction a year ago are obliged to admit their mistake and the worthlessness of their opinions.

The fiscal year in Egypt coincides with the calendar year, and the report of the English financial adviser in the ministry of finance has just appeared. It presents no extraordinary features.

REVENUE AND EXPENDITURES.

The revenue of Egypt for 1906 was $76,000,000, being $1,935,000 more than in 1905. The expenditure was $66,000,000, being $7,450,000 more than last year. The balance to the credit of the country for 1906 is $10,000,000. For 1907 the revenue is estimated at $73,700,000, which is not so much as for 1906, but as 1906 was an exceptionally good year the chances are against so good a one in 1907. If the Nile is not high, the land tax will be less remunerative, as only land that can have water pays this tax.

Egypt imported about $10,000,000 more in 1906 than in 1905 in merchandise, and about $17,000,000 in specie. It was this increase in

the specie imports which contributed to make the Bank of England raise its rate in October. The curious economic situation in Egypt is well described in a note of the financial adviser in 1905, which says:

> The fact that during the past two years the imports of merchandise and specie taken together have greatly outbalanced the exports, notwithstanding the constant heavy charges for the service of the foreign debt, constitutes a phenomenon that calls for reflection. A readjustment in the direction of normal equilibrium must come sooner or later, and if we are paying for our imports with capital provided by the foreign investor, the operation, though by no means unsound at present, can not be indefinitely continued.

It is considered too early yet to say what has been the precise effect of the reduction of the import duty of last year from 8 to 4 per cent on articles of prime necessity, such as coal, charcoal, wood fuel, oxen and cows, sheep, goats, frozen meat, petroleum, liquid fuel, and timber.

ALGERIA.

THE CEREAL AND FURNITURE TRADE.

Consul James Johnston makes the following report from Algiers on American trade opportunities in Algeria:

Something may be done in American breakfast foods here, but only to a limited extent, and it would be practically confined to English-speaking residents and visitors. These, however, are numerous, and they, as well as many hotel keepers, would be glad to find such articles easily obtainable. The matter would not interest Algerian wholesale grocers, as their business lies principally in the interior of the country, where ways of living differ too widely from those of America to make their keeping breakfast foods in stock worth while. [A list of the leading grocery establishments in Algiers is on file in the Bureau of Manufactures, which will be furnished to persons interested.]

Everything connected with the material requirements of schools in Algeria is under the direct control of the communes, which order the furniture equipments according to the patterns approved by the council. In by far the greater number of cases the furniture is made in the commune where the school is situated, and it is very rare that it is purchased in the larger Algerian cities or ordered from France. I know of no case where it has come from a foreign country. There is practically nothing to be done in church furniture. What little is needed for repairs or replacing old furniture is generally done locally.

SOUTH AFRICA.

THE TRADE OF LAST YEAR.

A DECREASE REPORTED IN THE SHARE OF GREAT BRITAIN.

The foreign trade of South Africa for 1906 shows a falling off from that of the previous year. On this subject the British and South African Export Gazette says:

Political changes in the United Kingdom, the definite prospect of constitutional privileges for the new colonies, the revision of the customs tariff, the growth of the industrial spirit, and the legacy of overtrad-

ing and overcompetition from previous years, all contributed more or less to modify the normal trend of trading. What is remarkable is that South African commerce should have remained at so high a level as to maintain the subcontinent, even after three years of depression, in its position as one of the finest markets in the world. Complete returns of the trade for 1906 are not yet available. A careful estimate, however, based on the latest statistics, gives the following result as to the approximate total importations for last year, compared with the actual figures for 1905:

Imported into—	1905.	1906 (approximate).
Cape Colony	$93,892,900	$89,640,930
Natal	50,086,110	42,976,062
Delagoa Bay	21,930,712	21,573,195
Beira	2,177,000	2,666,841
Total	168,086,722	156,857,028

The decline is largely the result of smaller imports of frozen meat, wheat, and similar articles. On the other hand, there was a decided increase in textiles, butter, bacon, eggs, condensed milk, electrical material, cement, and piping. With regard to the United Kingdom's share of the trade it is stated that it was less than during any previous period. During the recent months it amounted to 56.4 per cent against 58.5 per cent in the twelve months ended June 30, 1906. On the other hand, the foreign share in the trade increased from 29.2 to 31.1 per cent, Germany and the United States being the beneficiaries, the share of the former increasing from 7 to 7.6 per cent and that of the latter from 9.1 to 9.8 per cent. Trade prospects for 1907 are brighter than for several years.

TRADE NOTES.

The following items of commercial interest are published by the British and South African Export Gazette:

Last year ordinary cycles were exported from the United Kingdom to South Africa to the value of $700,000 and motor cycles to over $40,000.

A demand for looms in the Orange River Colony may be created if the scheme of Miss E. Hobhouse for teaching weaving to the Boer women proves a success.

There would appear to be a good market in South Africa for cheap stoves, fitted with ovens, to compete with the Swedish makes now almost monopolizing the market.

Kaffirs in many districts still winnow their corn by beating it with sticks and throwing it into the air. A simple corn sheller would doubtless sell well if properly introduced.

For the first time the British Board of Trade is offering a service of confidential information to British firms relative to their respective trades, and has opened a register for that purpose, reserving discretionary rights in regard to enrollment thereon.

The imports of boots and shoes into South Africa during 1906 are estimated at over $5,000,000; saddlery, $500,000, and other leather

purchases about $400,000, all increases over 1905. Unmanufactured leather to the value of $750,000 was also purchased, chiefly from the United Kingdom.

In addition to the big water conservation and irrigation scheme proposed by the Transvaal government for the Mooi River Valley at a cost of $750,000, surveys and investigations are proceeding in connection with the erection of a dam at Schoonspruit, and also a reservoir. The catchment area for the latter is said to be approximately 1,200 square miles.

The Cape government have reclassified explosives into five groups, and since January 1, 1907, each magazine is licensed for one particular group only.

A bill providing for compulsory fencing throughout the colony, the Northern Territory and Zululand excepted, has been passed in all its stages by the Natal parliament. For the purpose of assisting owners to fence their property and for the purchase and transport of animals, the government was authorized to raise the sum of $500,000.

During 1906 cotton piece goods were shipped from the United Kingdom to South Africa to the value of over $4,800,000, or $900,000 in excess of the amount for 1905. Dyed goods showed an increase of 28 per cent; printed goods, 25 per cent; unbleached goods, 24 per cent, and bleached goods, 9 per cent.

Motor cars to the value of nearly $300,000 were shipped from the United Kingdom to South Africa during 1906. It is noteworthy that a car on general touring lines is most suitable in such a district as the Rand, but for use on the veld, special features, such as extra strong springs and well-raised bodies, to provide for the negotiation of spruits, are essential.

The increased demand for Australian jams is to be noted, a result of the customs preference granted and the decline in the importation of chilled meat. Frozen butter, however, seems to be in greater favor, while the recent scare in regard to margarine, which is very largely used by hotels and restaurants for cooking purposes, has lost much of its force. Throughout South Africa a set is being made against the adulteration of foodstuffs.

A telegram has been received at the British colonial office from the governor of the Gold Coast stating that the cocoa crop for 1906 reached the record figure of 26,079,300 pounds.

Openings for druggists exist in East Africa, states the British Chemist and Druggist. Mobassa and Entebbe are recommended as good points. In the former a general pharmaceutical stock with specialties would be required, and at the latter a high-class perfume and fancy stock, with very few patent medicines.

GERMANY'S AFRICAN TRADE.

INTERCHANGE COMMERCE NEARLY DOUBLES IN FIVE YEARS.

The value of the total special trade of Germany with Africa in the year 1905, as shown in official German trade statistics, was $84,279,900, as compared with $74,500,000 in 1904. The statistics reveal further details as follows:

The imports into Germany from Africa for home consumption, exclusive of precious metals, in 1905 were valued at $55,313,200, as compared with $50,000,000 in 1904; and the exports to Africa of German produce and manufactures, exclusive of precious metals, amounted in value to $28,966,700, as compared with $24,500,000 the previous year. As showing the German commercial progress in Africa in recent years, the following comparison is made between the trade of 1905 and that of 1901. On the whole the imports from Africa in the five years increased 81.6 per cent, and the German exports thereto 70.9 per cent. The trade by countries was:

From and to—	Imports into Germany.			Exports from Germany.		
	1901.	1905.	Increase.	1901.	1905.	Increase.
British Africa:						
West	$7,514,000	$12,682,100	$5,168,100	$1,810,500	$1,693,400	$117,100
South	5,382,600	8,754,800	3,372,200	5,071,000	8,351,100	3,280,100
East	447,500	846,900	399,400	365,000	515,900	150,900
Total	13,344,100	22,283,800	8,939,700	7,246,500	10,560,400	3,313,900
French Africa:						
Algeria	1,615,800	3,002,700	1,386,900	131.400	272,400	141.000
West	1,211,800	1,552,600	340,800	511,000	584,000	73,000
Tunis	200,400	384,500	184,100	92,400	233,700	141.100
Madagascar	491,600	1,323,800	832,200	68,300	49,700	18,600
Total	3,519,600	6,263,600	2,744,000	803,100	1,139,800	336,700
German Africa:						
Cameroons and Togo	968,300	2,642,400	1,674,100	1,289,300	1,645,000	355,700
German East Africa	219,000	1,342,200	1,242,200	559,900	1,435,600	875,700
German South West Africa	68,300	48,700	19,600	1,348,100	4,423,700	3,075,600
Total German Africa	1,255,600	4,034,300	2,778,700	3,197,300	7,504,300	4,307,000
All other Africa:						
Egypt	7,737,800	14,745,500	7,007,700	4,029,500	7,372,300	3,342,800
Congo Free State	1,426,900	2,720,400	1,293,500	209,300	185,000	24,300
Portuguese West	1,610,900	1,980,700	369,800	355,300	540,300	185,000
Portuguese East	369,900	1,367,400	997.500	428,500	1,109,600	681,100
Morocco	869,700	1,425,900	556,200	355,300	350,500	4,800
Liberia	296,900	272,500	24,400	185,000	126,500	58,500
Abyssinia[a]	19,600	175,200	155,600	9,800	39,000	29,200
All other Africa	4,900	43,900	39,000	136,300	39,000	97,300
Grand total	30,455,900	55,313,200	24,857,300	16,955,900	28,966,700	12,010,800

[a] Including Italian possessions on the Red Sea, and French and English possessions on the African coast of the Gulf of Aden.

As the exports from Germany to Africa may be considered fairly representative of the character of the products consumed in the various divisions of the continent, the following statement covering the principal exports from Germany in 1905 should be of interest to American manufacturers and exporters generally.

British South Africa.—Total exports thereto $8,351,100, made up of machinery, ironware (including enameled ware), cyanide of potassium, cotton textiles, glycerin, pianos, explosives (the foregoing articles having been exported to the value of over $250,000 each), railway rolling stock, cement, sugar, silks, etc.

British West Africa.—Total exports thereto $1,693,400, composed of brandy in bottles, ironware, cotton piece goods, coal, perfumery, sugar, beer, etc.

British East Africa.—Total exports thereto $515,900, composed of cotton piece goods, chiefly dyed and printed, common soap, cyanide of potassium, sugar, condensed milk, ironware, glass beads, copper wire, machinery, cotton hosiery, bottled beer, rails, earthenware, etc.

German East Africa.—Total exports thereto $1,435,600, composed of fish plates and sleepers, locomotives and locomobiles, rolling stock, clothing, millinery, machinery, ironware, close-woven cotton tissues, bridges, and bridge material.

Cameroons and Togo.—Total exports thereto $1,645,000, composed of clothing, close-woven cotton tissues, rice, coarse and fine ironware, copper alloy wire, cutlery, bottled beer, brass ware, and railway material.

German Southwest Africa.—Total exports thereto $4,423,700, composed of oats, the largest export thereto, bottled beer, chocolate, salted butter, table delicacies, railway material, cigars, sugar, mineral waters, etc.

Algeria.—Total exports thereto $272,400, composed of raw tobacco, patent fuel, machinery, potatoes, coarse enameled and iron ware, and essential oils.

Tunis.—Total exports thereto $233,700, composed of gold and silver ware, machinery, leather, coarse ironware, cotton and woolen hosiery, etc.

French West Africa.—Total exports thereto $584,000, composed of close-woven cotton tissues, gunpowder, cutlery, bottled beer and brandy, rice, spirits, ironware, etc.

Portuguese East Africa.—Total exports thereto $1,109,600, composed of cotton goods, cement, coarse and fine ironware, condensed milk, coarse wares of soft india rubber, bottled beer, rails, machinery, copper alloy wire, explosives, etc.

Portuguese West Africa.—Total exports thereto $540,000, composed of close-woven cotton tissues, ironware, cutlery, gunpowder, railway sleepers and fish plates, clothing, bottled beer, etc.

Egypt.—Total exports thereto $7,372,300, composed of woolens, close-woven cottons, gold and silver goods (each to the value of over $500,000), rails and fish plates, ironware, including firearms, cutlery and enameled ware, half-silk hosiery, locomotives and automobiles (each to the value of $250,000), wheat flour, electric cable, cotton embroidery, cotton lace, machinery, gold, silver, and colored paper, women's apparel, bottled beer, woolen yarns, etc.

Congo Free State.—Total exports thereto $185,000, composed of bottled beer, cotton tissues, coarse ironware, cutlery, porcelain, gunpowder, etc.

Morocco.—Total exports thereto $350,500, composed of rice and woolen goods chiefly.

NORTH AMERICA.

MEXICO.

STATE OF CHIHUAHUA.

COMMERCIAL AND INDUSTRIAL ACTIVITY.

Vice-Consul C. M. Leonard reports that 1906 was a year of unusual prosperity in the Chihuahua district, due principally to good crops and the stability of the Mexican silver dollar, its value being maintained at practically 50 cents gold. He writes:

Foreign capital, principally from the United States, is flowing into the country in increasing amounts, large sums being invested in mines, timber lands, ranches, railroads, manufacturing and commercial enterprises, water-power schemes, etc.

Chihuahua, the capital of the State of the same name, is a city of 30,000 inhabitants, about 1,500 of whom are Americans engaged in different enterprises, besides quite a number are employed on railroads, in the mines, etc. Among the leading industries are two flour mills, a brewery, factories for the manufacture of shoes, brass beds, etc., and woolen and cotton mills. Many of these industries are owned and conducted by Americans. The Government is liberal in granting concessions to new industries, which are usually given for five to ten years, and carry exemption from municipal and State taxes during the period they run.

THE YEAR'S PRODUCTS.

Several zinc mines were opened up during 1906 and are now producing regularly. Copper exists in great quantities in the western part of the State and only awaits railroad transportation to make these mines available. Several new gold and silver mines have been discovered. Taxes on mining claims have been reduced to $6 silver per annum per claim of 2.47 acres up to twenty-five claims. All over that number are taxed at the rate of $3 each. A permanent mining exposition has been opened in Chihuahua, which is maintained by the State. It contains a great variety of specimen ores.

Western Chihuahua has immense bodies of pine timber, cutting from a few hundred to as high as 10,000 feet to the acre. These lands are held for the most part by private owners, who are keeping them for higher prices, which they anticipate from the extension of railway lines. Cattle find a ready market here for shipment to the city of Mexico and Cuba, very few going to the United States. Prices range from $20 silver ($10 gold) for range stock (cows and young steers) to $35 silver ($17.50 gold) for 4-year-old steers. The ranges are well supplied with grass and water and cattle are in excellent condition.

The yield of farm crops has increased 50 per cent over previous years, due almost entirely to modern methods. A few years ago the only plow seen was a sharpened stick, which scraped the ground to a depth of 3 or 4 inches, after which the seed was planted and nature did the rest. The importation of agricultural machinery is estimated to have increased 50 per cent over 1905, and it is probably 95 per cent of American manufacture.

Apples, peaches, pears, plums, figs, and pomegranates grow well. The soil seems peculiarly adapted to apples. The Mormon colonies in the northern part of the State are shipping apples to all parts of the Republic. They retail for 40 cents silver for 2.2 pounds.

The Kansas City, Mexico and Orient Railroad, which is being built from the former city to Topolobampo, on the Pacific coast, passing through the State of Chihuahua from east to west, is progressing satisfactorily. Recently 62 miles of road west of Minaca were completed and trains are now operated daily. On this amount of road the company received $1,200,000 silver as a subsidy from the Federal Government. Track is laid and trains run daily to a point 76 miles east of Chihuahua. This, with the Chihuahua and Pacific Railroad, which acts as a connecting link, gives the State a continuous railroad for a distance of 278 miles from east to west. The Kansas City, Mexico and Orient Railroad has also 62 miles of road completed and under operation from Topolobampo eastward. This road will tap a very rich timber belt, and already values are increasing along the proposed route. The road will also pass through a mining district rich in gold, silver, and copper. From the terminus of the Guerrero Valley extension of the Chihuahua and Pacific Railroad at Temosachic, the Cananea Consolidated Copper Company is building a narrow gauge road to reach its timber district. This road will eventually be built through to connect with the Sierra Madre, Rio Grande and Pacific Railroad, giving that section a direct outlet to the United States border at El Paso, Tex.

NEW ENTERPRISES—EXPORTS TO THE UNITED STATES.

A silver-lead smelter is being erected in Chihuahua which will have a capacity of 800 tons daily, and employing 500 men. The Federal Government is building a palace in Chihuahua to cost $500,000. The municipal government has under way a building to cost $100,000 and is building a dam for increasing and improving the water supply at a cost of $350,000. Mechanics and laborers are employed at very good wages. Chihuahua needs more hotels. The few here are crowded and guests often have to seek accommodations in private homes.

There appears to be no complaint against United States goods, methods of credit, packings, styles, etc., but much grumbling is heard about the long delays of manufacturers in filling orders. A prominent importer said that he probably suffered a loss of 15 per cent of his possible sales on this account, some orders being held from six months to a year before being filled.

The value of declared exports from this consular district to the United States during the calendar year 1906 amounted to $6,096,450. The articles were: Gold and silver bullion, worth $4,061,445; silver, lead, and gold ore, $1,502,569; calamine zinc ore, $274,798; hides, $206,675; sulphide of zinc ore, $45,885; other articles, $1,515; and returned American goods, $3,563.

LOWER CALIFORNIA.

INDUSTRIAL AND COMMERCIAL CONDITIONS DURING 1906.

Consul G. B. McGoogan, of La Paz, contributes the following article on commerce and industry in Lower California during 1906:

One of the permanent and most important industries here is the pearl fisheries, under control of two companies, who hold exclusive concessions covering the entire pearl-fishing waters. They employ about 500 men in the fisheries who receive moderate wages. Pumpers receive $10 per month, divers $30 per month and 10 per cent of shells and pearls which they may gather; diver's assistant, $18 per month. Included with wages the men are furnished their subsistence.

The Mexican Government, in order to prevent the extermination of the pearl oyster, has by law divided the Gulf of California into four sections, only one of which is fished in one year. The companies interested are cultivating the pearl oyster, thereby increasing their production. Some of the most valuable shells of the world have been found in the Gulf of California. Among these is a pink pearl belonging to the crown jewels of Spain valued at $55,000, and the Cleopatra pearl, found in 1891, sold in Paris for $17,000.

AGRICULTURE AND MINING.

The agricultural worth of Lower California is very small at present, only a few thousand acres in this consular district being under cultivation. The larger part of this is irrigated from streams fed by springs. All the cultivated grounds and gardens in the vicinity of La Paz are irrigated from wells from which the water is pumped by wind or steam.

A large part of the southern half of Lower California is dry and barren, and only has from 2 to 6 inches of rainfall yearly. The soil of this section with irrigation would be very productive. Artesian wells offer the only method of irrigation and their existence is as yet problematical, although the rainfall in the mountains reaches 30 inches yearly. A French company will soon investigate the prospects for artesian wells in this territory.

The mining situation while not flattering, may be said to be in a healthy condition. The mines here have been in operation many years and while the ore is not high grade and is very rebellious, it has been mined at a profit and no doubt will yield gold and silver and by-products for many years to come.

The Mexican Government has just completed telegraphic communication between La Paz and Todos Santos and San Jose del Cabo on the southern point of the peninsula. There is under construction a wireless station at San Jose del Cabo to communicate with the station at Mazatlan which will be finished about the 1st of May. This will give La Paz its first telegraphic communication with the outside world, and will be important to the United States on account of the American naval coal depot at Pichilinque Bay, 7 miles from La Paz, and under the supervision of the American consul at that port.

IMPORTS AND EXPORTS.

The exports of La Paz for the calendar year 1906 totaled $311,410, consisting of the following principal items:

Tan bark, valued at $5,952; damiana, $1,121; maguey fiber, $10,157; shark fins, $9,340; copper ore, $1,112; gold ore, $142,892; lead ore, $2,102, and silver ore, $138,006.

The general merchandise imports from San Francisco only, direct to this port, were estimated at $70,000. It is proper to say that this statement is not a report of the actual business of La Paz. The El Progreso Mining Company has a concession whereby it imports goods free of duty, which renders it difficult to obtain data on the subject.

All exportations shipped by way of Guaymas are not invoiced here but at Guaymas. All importations destined for this port passing through Nogales from the United States are duty paid at Nogales. Merchandise from Europe for La Paz is landed and cleared at the custom house at Mazatlan, and transported from there in private sailboats owned by the merchants in La Paz.

MUSICAL GOODS.

A GOOD MARKET FOR INSTRUMENTS—TRADE DETAILS.

Consul J. A. Le Roy, of Durango, reporting on the use and sale of musical instruments in Mexico, says:

Having regard for the distribution of wealth among its people, Mexico may be regarded as a very good market for musical instruments. No town of importance is without at least one municipal band or orchestra for public concerts. Pianos are owned in a surprisingly large number of private houses; and the small musical instruments, particularly guitars, mandolins, etc., are much more common. The United States, however, is not selling to Mexico its fair share of the musical instruments, or at least of the larger kinds. Germany enjoys a distinct leadership in this line of importations, although, apart from Germany, the United States distances all other competitors. It is particularly in pianos that Germany leads. But few organs are sold in Mexico. During the past five years Germany's leadership in sales of the small musical instruments has been challenged by the United States, and if exact figures were available the latter would probably be found in the lead in this line. In the cheap grades of pianos Germany can quote prices very considerably below those of the cheap pianos of the United States, and the pianos which come from the United States are quite commonly the higher-priced kind.

FREIGHT RATES AND DUTIES.

Freight rates, especially when it is a question of any great haul by land, play a large part in the matter. Then the duty in Mexican custom-houses is the same on all kinds and classes of musical instruments, and has regard only to weight and not to value. The duty is 55 cents Mexican per legal kilogram (12½ cents United States currency per pound) exclusive of crates, etc. A rare and valuable violin would therefore pay less than $1 in duty, while a cheap cottage organ or cheap piano would pay from $25 to $75 gold. On the average the duty and freight charges fully double the cost of a piano. They are sold in Mexico from about $125 gold to $1,250 or $1,500, and the increase in cost grows proportionately for the cities which are farthest inland, or more distant from the Rio Grande border. There is one factory in Mexico where the parts of pianos manufac-

tured in Europe are assembled by expert workmen, but this is the only establishment that may be called a piano factory. There is no organ factory in the country.

COUNTRIES IMPORTING INSTRUMENTS.

The latest Mexican statistics available in detail are for 1903–4 and show total importations of musical instruments to the value of $538,000 silver, the Mexican dollar being worth on the average during that year 45 or 46 cents gold. This sum included, during a part of the year, the value of violin cases, etc., but it is probable that the figures given represent a very great undervaluation. They show, however, the relative importations from the various countries. The total value of musical instruments from Germany in that year was $290,000; from the United States, $196,500; France, $38,350; the others, inconsiderable. The United States export figures for that same year show total exportations of musical instruments to Mexico to the value of $207,000 United States currency. Of this total, $7,860 was represented by organs, 134 in number; and $43,690 by pianos, comprising only 192 instruments, with an average value of $227.50 each. The trade both in pianos and organs had fluctuated up and down for ten years; but these sums represent more than the average value during that period.

In musical instruments of all other kinds, however, exportations have grown greatly from the United States to Mexico since 1900, and they amounted during 1903–4 to $155,125. Duty and transportation, of course, add little to the cost of such instruments.

SELF-PLAYING INSTRUMENTS.

One line of American musical instruments, viz, the self-playing pianos and organs, does not seem to have been pushed in Mexico as it might have been. In Mexico City, Guadalajara, and one or two other cities, more has been done in this line, and this is true of several makes of American pianos and organs, by means of the establishment of agencies. In most parts of the country, however, these instruments are virtually unknown. There are probably not six of them, all told, in this consular district, and under present conditions no more will be sold. There are no special music stores in any town of this district. In Durango there is not even a place where pianos are kept in stock, although there are several agents in town and the large general stores will take orders, besides carrying some of the smaller musical instruments. Practically the same is the case at Torreon, Gomez Palacio, and Ciudad Lerdo, where, however, a good many pianos are owned and more are constantly being sold.

PERSONAL AGENTS AND SHOWROOMS.

An American agent has occasionally done a good business by bringing to this city a line of pianos and setting them up in a temporary showroom. It need not be said that pianos, whether self-playing or not, can not readily be introduced into a region where they are unknown without being shown therein. Nor is the establishment of an agency in the capital or other cities in the southern part of the country a measure calculated to introduce new lines of instruments into the other sections. This seems to have been the chief reason why self-playing pianos and organs are little known in Mexico. The people are all lovers of music, and they are also readily inclined to buy novel-

ties in this or other lines. There has been a great sale of phonographs in this district during the past year, and the city of Durango in particular is fairly alive with them at present. There is less market, of course, for self-playing organs and pianos, but there should be a market. The organ should find a special sale in the small chapels of ranch and mining towns.

CANADA.

BUSY ONTARIO PORT.

LUMBER AND MINERAL PRODUCTIONS AT SAULT STE. MARIE.

According to Consul George W. Shotts, industrial enterprises in the Sault Ste. Marie district of Canada were very active and prosperous during the calendar year 1906, concerning which he writes:

The steel mills here produced 160,000 tons of steel rails for the year ended June 30, and about 85,000 tons for the six months ended December 31. Two more open-hearth furnaces will be completed by February, 1907, while the construction of another 400-ton furnace is planned for the near future. The steel company showed a net profit for the year ended June 30 of $556,880.

The products of the forests of the district, manufactured and unmanufactured, amounted to $3,253,639 in 1905 and $4,583,764 in 1906. Nine of the 11 large sawmills are owned by Americans. The total output of the mills for 1905 was 170,000,000 feet, and 212,000,000 feet for 1906, and from estimates furnished me the output for 1907 is expected to be about 300,000,000 feet.

More than 75 per cent of the lumber and practically all of the pulp, lath, logs, ties, charcoal, etc., manufactured in this district were shipped to the States, and fully 85 per cent of all forest product of the district was manufactured by Americans. This forest product is taken from "Crown lands," from which the provincial government receives a large revenue. Dues are charged on pine timber as cut, $2 per thousand feet; cedar logs and poles, $1 per thousand feet; 5 cents for each railway tie, and 40 cents per cord for pulp wood.

MINING AND OIL-WELL DRILLING.

The shipments of mine products to the United States fell off from $254,302 in 1905 to $124,522 in 1906. The decrease was in iron ore, which was more extensively used in Canadian furnaces than during the previous year. The leading articles shipped in 1906 were iron ore, $94,758, and iron pyrites, $18,673. The principal mines being developed are copper, iron, and gold, with copper predominating. Two copper concentrating plants are now practically completed, and two plants for smelting ores, principally copper, are in process of building. One concentrating plant has a capacity of 400 tons daily. Several gold-mining concerns have arranged to put in mills during the coming summer, and it is expected that there will soon be quite a production of gold bullion in the district. American capital predominates in the mining industries. Prospecting for oil has been continuous and systematic on Manitoulin Island during the year. Oil is found at a depth of from 350 to 500 feet, and seems to exist over an entire field ranging about 25 by 30 miles in extent. Two American firms are doing the

principal prospecting, and are said to have obtained control of the larger part of the field. I am informed by a trustworthy man, who spent some weeks on the ground in the interest of one of these firms, that about one hundred wells have been bored, and that so far only one dry well has been found.

Agriculture is in rather a backward state in the district. Only a small percentage of the lands are cleared, and those are not well cultivated, the result being that the larger part of the necessities of life have to be shipped here. Much of this comes from the United States, mostly through Montreal and Toronto houses.

Much more might be sold from the States by sending good salesmen to canvass the district. A large portion of the machinery and tools used by the mills and mines comes from the States, but a closer attention to this trade would show profitable results.

Americans have furnished over 70 per cent of the capital invested in steel mills, iron furnaces, and associated industries, manufactured about 80 per cent of the lumber, lath, and shingles, and furnished the capital for about 75 per cent of the mining development and about 90 per cent of the oil development of the district. At least 90 per cent of these investments have been made within the last eight to ten years. The exports from Sault Ste. Marie to the United States for the calendar years 1905 and 1906 were:

Articles.	1905.	1906.
Fish, fresh and salt	$29,086	$23,827
Hides	6,220	1,396
Products of the mines	254,302	124,521
Products of the forest	3,253,648	4,574,765
Miscellaneous	28,234	40,047
United States goods returned	68,695	99,987
Total	3,640,195	4,864,543

SHERBROOKE.

MINING, DAIRY, AND OTHER INDUSTRIES.

Consul Paul Lang reports on the commercial and industrial conditions of the Sherbrooke, Canada, consular district, of which the following is a condensation:

Dairying, the raising of live stock, and the manufacture of maple sugar are the chief features of the district. So important has the dairy business become that farms are now leased on the basis of the number of cows they are able to sustain, the rental being about $10 for each cow. It is estimated that this industry alone brings to the farmers of the district annually $6,000,000.

The maple-sugar industry has taken an important place in farming. The average farm has from 500 to 1,000 maple trees suitable for sugar making, though there are some large farms having several thousand trees. The average yield per tree is from 2 to 3 pounds of sugar, according to the season, and the price is about 8 cents per pound.

The fine water powers on the streams have resulted in many manufacturing establishments. The chief source of Sherbrooke's water power is the Magog River. This stream is 19 miles long. There is a fall of 320 feet between the outlet of Lake Memphremagog and the junction of the Magog and San Francis rivers at Sherbrooke. Within

a distance of one-half mile of the city are five dams, providing power for fourteen industries. On the San Francis River at Bromptonville from 6,000 to 15,000 horsepower is furnished.

Asbestos is mined extensively at several points in the district. In the mines on the Quebec Central Railway over 5,000 persons are employed. These mines are owned and worked by American, Canadian, English, and German companies. The production in 1880 was 380 tons; in 1900, 29,141 tons; and in 1906 it was estimated at 50,000 tons. The prices range from $18 to $20 per ton for mill stock and $175 to $200 per ton for the highest grade.

Copper has been discovered in many places, and about fifty properties have been opened up to some extent and prospect work done on them. There are at present only two producing mines, which have been worked at a profit for forty years. The ore is of low grade, but rich in chemical products. Iron has been found in several localities, and at the present time three companies are engaged in chromic iron mining.

The declared exports from Sherbrooke to the United States during the calendar year amounted to $1,583,468, an increase of $426,984 over 1905. The following table gives the exports by articles:

Article.	Value.	Article.	Value.
Animals	$58,302	Minerals:	
Brass scrap	3,148	Ore—	
Hides	45,827	All other	$13,988
Household effects	15,263	Pulp wood	12,583
Lumber, and manufactures of	126,630	Rubber, scrap	2,919
Minerals:		Salt, coke	17,559
Asbestos	779,386	Wood pulp	193,184
Matte, copper	22,986	Woolen tweeds	3,893
Mercury, fulminate of	35,024	All other articles	97,694
Ore—		Returned goods	10,250
Chrome	91,966		
Sulphur	52,871	Total	1,583,468

The exports from the consular agencies of Crookshire and Megantic to the United States during 1906 amounted to $308,572 and $137,748, respectively. The chief articles were lumber, pulp wood, wood pulp, and animals.

ST. JOHNS (QUEBEC).

COMMERCIAL ACTIVITY OF THE ST. LAWRENCE RIVER REGION.

Consul Charles Deal, of St. Johns, Quebec Province, reports upon the progress and prosperity of that part of Canada during 1906, a summary of which follows:

United States capital is coming into Canada in huge sums, $200,000,000 of it having been invested in farms, factories, forests, mills, and mines within the past ten years. St. Johns is getting its share of capital and trade. Its 13 hotels can hardly accommodate all the travelers, and the city has 6 banks, 6 railroads, and 17 healthy industries. Factories, banks, and railroads are being enlarged and new ones built. A ship canal company has been organized to connect St. Johns with Longueil, just opposite Montreal, on the St. Lawrence. It is to be 20 feet deep, 180 feet wide, and 78 miles long. It will reduce the distance between New York and the Great Lakes by several days, and prove a great grain carrier for the West. Water power is to be derived from this canal because of the deep fall between its termini. This will be distributed over the district through which the canal is to be cut.

UNITED STATES SUPPLIES—IMPORTS OF FOOTWEAR.

Among the imports, footwear arrives in large quantities. In the fiscal year 1906 Canada's imports of rubber boots and shoes were valued at $143,221, of which $142,763 came from the United States and $253 from Great Britain. The goods from the United States paid a duty of 25 per cent and the British goods only two-thirds that rate. The imports of leather boots and shoes were valued at $1,283,004, of which the United States sold $1,124,353 and Great Britain, under the preferential tariff of 33⅓ per cent, sold $63,052. The total imports of all kinds of footwear were valued at $1,526,565, of which over 90 per cent, or $1,383,944, came from the States. Hardware, machinery of all kinds, tools, implements, etc., dry and fancy goods also come from the United States in large quantities. American magazines are now found on all Canadian news stands, whereas a few years ago none were sold except upon subscription. There is a good field for American newspapers if they will devote a reasonable space to Canadian and frontier news, and their advertisements would extend the sale of American goods. American shippers should number their boxes in such a way as to have them correspond with the invoice number. This will help to identify them as they pass through the custom-houses, saving delay and annoyance. The waybill should give full information regarding marks and numbers, description of packages, etc., to enable carriers to make a quick and intelligent report at the custom-house.

CANADA'S BANKING SYSTEM.

Canada has 33 chartered banks, and these have 1,608 branches. Whenever the business interests of a region, however remote, require a bank, a branch of one already established is erected, and all the available funds at the disposal of the parent bank are put at the service of the branch bank. Thus Canada can keep pace in her banking business with all the new industries as they arise. The system seems to secure satisfactory results, for it facilitates collections and makes the distribution of capital easy. Banks that collect capital in older communities in the form of deposits, etc., transfer it to the new sections where industry and commerce require it. Loans made to merchants and manufacturers in the remote regions bear no greater interest than do loans in the large cities.

Attention is again called to the value of commercial travelers in promoting trade. Those who do so are succeeding. Canadians recognize the superiority of many American goods and are ready to handle them.

The declared exports to the United States from St. Johns for 1906 amounted to $182,783. Of this, hides and skins figured at $69,129, oats $27,636, hay $27,019, emigrants' effects $14,740, and railway ties $9,544. Only goods over $100 require a certified consular invoice, and as a large percentage of the traffic items are less than $100 the amount stated does not fully represent the exports to the States. The imports are largely through Montreal and Toronto.

GROWTH OF FORT ERIE.

ELECTRIC POWER DEVELOPED FOR USE IN BUFFALO.

Consul H. J. Harvey writes from Fort Erie that the development of electric power at Niagara, Ontario, has stimulated many new industries in that district.

At Welland more than $1,500,000 has been expended in new manufactures and many more are projected. The Plymouth Cordage Company, an American concern, has spent nearly $1,000,000 in new works and tenement buildings; also the Ontario Iron and Steel Company has built a plant costing $300,000.

The Canadian Ship Building Company, located on the Niagara River, has contracted to build this year for the Upper Lake trade a grain barge 530 feet long and a passenger steamer 350 feet in length. These vessels, being too long to pass through the locks of the Welland Canal, had to be built where they could get into Lake Erie. A large elevator is to be built at Port Colborne which will be used to transfer grain to smaller vessels that pass through the canal.

During 1906 more than 5,000,000 pounds of old steel rails were exported from this district to Buffalo and Tonawanda, N. Y., on which a duty of $4 per ton was charged.

The Ontario Niagara Power Company has erected a steel tower here 210 feet high for the purpose of transmitting electricity to Buffalo. A corresponding tower has been built on the American side. These towers are 2,200 feet apart, and have nine cables. Each cable contains 60 aluminum wires, one-eighth inch in diameter, which are lighter and stronger than steel. The wires are 150 feet above the river. An electric trolley line will soon be built from Niagara Falls to Port Colborne, largely for the accommodation of the employees of the navy-yard, steel works, and summer residents along the lake shore.

BUSINESS AT COATICOOK.

INCREASED SHIPMENT OF SUPPLIES TO THE UNITED STATES.

Consul F. D. Hale, of Coaticook, furnishes a report on the trade conditions of that Canadian point for the calendar year 1906, which is as follows:

The year marked a great advance and development in all lines of capital investments. This is principally a farming community, although every little hamlet has its water power and small manufacturing industries. This district, with its large per cent of English people, is probably above the average in the amount and value of its home consumption and export trade. A large amount of American goods find their way here, but principally come through the large distributing centers, Montreal and Toronto.

Immediately following the Chicago packing-house investigation, there was a large falling off in the demand for canned meats. This trade has not yet been fully recovered but in time the old conditions and demands will be regained. Pure-food laws are being better enforced here than ever before.

The license tax on commercial travelers, in force during the past two years, has not proved popular, nor as productive of revenue as was hoped, and will probably be repealed at the next session of the Quebec Provincial Parliament.

The total exports from this consular district to the United States during the year amounted to $343,403, of which Coaticook furnished articles worth $34,266; Hersford, $36,599; Lineboro, $252,864, and Stanstead, $19,674. The leading articles were lumber and timber,

hides and skins, pulpwood, maple sugar, and live animals. The total increase in exports to the United States from the district amounted to $64,177 over 1905.

BRITISH COLUMBIA.

A TRADING AGENCY ESTABLISHED.

Consul L. E. Dudley, of Vancouver, reports that an agency has been established in his district by which a large part of the adjacent districts of British Columbia are being supplied with American products. He writes:

In 1897 I observed that a large proportion of the tools and machinery and much of the food supply consumed in this Province came from the United States. However, I felt that the best way to introduce American manufactures would be to canvass the country by means of expert agents, though in many cases the prospective sales would not be sufficient to warrant this expense on the part of individual concerns. I then endeavored to induce some business men to establish a manufacturer's agency here, said agency to carry a line of samples of many different lines, and to employ one or more agents to visit all portions of the country, inviting the attention of prospective buyers to the opportunity afforded to see samples, and to secure prices and full information regarding duties, best methods of shipping, etc.

Two attempts were made to establish an agency here, but in both cases the persons undertaking to do this had too little capital, and, therefore, failed to accomplish the results desired. Recently a gentleman came here from the United States with considerable capital, associated himself with local capitalists and organized the "American Manufacturers' Agency," which seems to be in a fair way of becoming a successful business establishment. I shall be glad to place all American manufacturers, who so desire, in communication with this new agency.

It is impossible to ascertain just what proportion of manufactured articles sold in this market comes from the United States. Certain it is that the proportion is very large. As I go about from store to store I see American manufactured goods on every hand. Much of this supply comes to British Columbia through Montreal, Toronto, and other points in eastern Canada.

LEADING ARTICLES OF IMPORT.

Among the long list of manufactured articles imported into British Columbia may be mentioned: Mining tools and machinery of all kinds, agricultural tools and machinery, sawmill tools and machinery, donkey engines and other machinery, as well as tools of various kinds used in the logging industry, all kinds of tools used in the building trades, together with supplies of asphaltum, cement, pressed bricks, etc. One flour mill has recently been constructed and put in operation here; it is said that several other mills will be in operation in time for this year's wheat crop, and it is presumed that most of the machinery for these mills will come from the United States. Silver hollow ware is brought to eastern Canada in blank, and finished there to supply this and other markets in Canada. Railway building is being rushed in all portions of this Province, and large quantities of tools and machinery will be in demand for this class of work. Automobiles and all kinds of motor vehicles and motor boats are in demand.

WEST INDIES.

SANTO DOMINGO.

COMMERCE OF ISLAND.

THE TRADE BALANCE IS IN FAVOR OF THE REPUBLIC.

Mr. R. E. Pollock, an attaché of the American Legation at Santo Domingo, furnishes a review of the commerce of that Republic for the first six months of 1906, the chief points of which are as follows:

The total foreign trade for the half year amounted to $5,894,426, of which $1,887,268 were imports and $4,007,158 exports. This shows a balance of trade for the half year in favor of Santo Domingo of $2,119,890. The imports from the United States were valued at $994,153 and the exports thereto, $2,839,525. The trade with Germany was next in importance, aggregating $1,285,328, of which $436,105 represented imports and $849,223 exports, or about the same amounts as in the first half of 1905. The total trade with Germany shows an increase of $379,926 over the comparative six months of 1905, which advances the percentage of Santo Domingo's trade with that country from 13 to 21 per cent of the whole. This was facilitated by the employment of a suitable local steamer by the Hamburg-American Line to connect the commerce of the Republic with its through steamers touching at St. Thomas. The imports from France amounted to $230,433; the exports $101,630. The trade with Great Britain increased from $260,844 to $282,692.

The principal classes of commodities imported, in their order of relative importance were cotton goods, rice, iron and steel manufactures, breadstuffs, meats, and dairy products, oils, manufactures of vegetable fibers, preserved fish, wood, and leather manufactures, chemicals and drugs, agricultural implements, malt liquors, manufactures of paper, and hats and caps. These articles represented in value 76 per cent of goods imported.

COTTON, IRON, AND FOODSTUFFS.

Nearly double the value of cotton manufactures were entered over the corresponding six months of 1905 from the United States and Great Britain, being invoiced from the two countries at $195,275 and $173,505, respectively. Germany furnished cotton goods to the amount of $66,150, and France $28,239, while smaller consignments were received from Spain, Italy, and other countries. Germany continued to furnish the largest amount of rice, the shipments increasing in value from $56,258 to $135,882. The value of this food from the United States, $26,933, was more than doubled, while Great Britain's share was $10,956.

Manufactures of iron and steel are the only classes of imports mentioned which show a decrease in value during the half year. The

purchases from the United States amounted to $96,908 and from the United Kingdom $23,241 as compared with $118,974 and $43,476, respectively, for the corresponding period of 1905. Germany's share of this trade amounted to $36,878, a slight increase. Breadstuffs, comprising wheat and flour, to the value of $132,312 and other cereal products worth $12,518, were received mostly from the United States. The United States furnished all the flour except $90 worth. The increase in the value of meat and dairy products is represented by larger receipts from the United States and Germany, the share of each being $53,044 and $44,716, respectively. France, Italy and the United Kingdom also increased their sales.

The United States furnished 95 per cent of the cottonseed, illuminating, and lubricating oils, the value of which was $95,016. The imports of manufactures of vegetable fibers, preserved fish, manufactures of wood, leather goods, and chemicals, drugs and dyes all showed increases, and most of which were supplied by the United States. German beer found a greater demand than that of any other make, the receipts showing an increase in value from $11,889 to $20,333. The United States furnished $5,599 worth of beer, the remainder coming from the United Kingdom and Spain.

LEADING EXPORTS—NATIONALITY OF VESSELS.

Sugar, cacao, coffee, and tobacco, were the principal exports, these articles representing 88 per cent of all the products shipped from the Republic during the six months. Most of the sugar, 107,126,103 pounds, valued at $2,086,560 went to the United States. Cacao found the largest market in Germany, shipments to that country amounting to 9,602,621 pounds, valued at $638,100. This was an increase in quantity of 3,118,119 pounds over the six months' period of 1905. The shipments to the United States were 6,125,341 pounds, worth $395,362, as against 4,323,119 pounds, worth $350,681, while the consignments to France decreased from 6,528,169 pounds to 2,475,933 pounds, valued at $563,138 and $179,302, respectively.

Coffee shipments to Germany increased from 356,481 to 1,203,444 pounds, valued respectively at $25,164 and $76,945, while those going to the United States, comprised 392,070 pounds, valued at $34,031, showing no appreciable change. The amount sent to France decreased from 529,051 pounds, valued at $39,792, to 316,527 pounds, valued at $18,344; Cuba took 56,607 pounds, and the remainder of the 2,080,870 pounds exported was distributed among other countries.

The shipments of tobacco to Germany dropped from 3,362,684 pounds to 744,180 pounds, while the United States increased its purchases 600,000 pounds, having been less than 60,000 pounds during the first half of 1905. The remainder 349,174 pounds went principally to France. The United States took 434,500 bunches of bananas. Materials for drugs and dyes worth $43,024 mostly went to Germany. Goatskins and cattle hides valued at $22,176 and $15,099, respectively, went to the United States, while Germany took $26,964 of the latter. Wax valued at $51,375 was shipped to the United States, Germany, and France.

Of the total imports, values to the amount of $1,135,950 were brought in American vessels, $652,078 in German, $146,882 in French, $42,342 in Norwegian, and $33,131 in British. American vessels brought substantially all the cargoes imported from the United States, as well as

transit cargoes, valued at $50,470. Of the total exports, American vessels carried goods worth $1,416,652; Norwegian $1,218,198; German $855,451; French $240,860; and British $236,197.

HAITI.

TRADE CONDITIONS.

AMERICAN GOODS FIND FAVOR IN WEST INDIES.

Nearly two-thirds of the imports into Port au Prince, Haiti, according to Consul John B. Terres, are from the United States. The remainder come largely from France, Germany, and England. The consul writes:

Under the present depressed state of things it would be difficult to advise any change that would increase American trade over the two-thirds share of all the imports at Port au Prince. The amount of the export trade of this exceedingly fertile island is very small, and certainly with progress and development, it could easily, in a short time be increased twentyfold. Some of the surrounding islands far less fertile, are doing much more. Foreign capital is needed; with that a very rapid increase in the exports and imports may be expected.

For a few years considerable attention has been paid to cotton planting, with a gradual increase in the production. It is hoped that cotton in the near future will make up the deficiency in the coffee crop. There are vast fields suitable for cotton culture. All the gins and presses used here are from the United States.

The production of sugar has gradually increased and a fair light brown grade is being produced for home consumption. At times it is difficult to meet the demand. The price obtained is equal to 8 cents American gold per pound, which pays a handsome profit to the producer. So far there has been no sugar refinery established to produce finer grades of white sugar. All sugar machinery is imported from the United States. The cultivation of tobacco continues about the same as it has for some time. It is probable that more attention will be given to this article, as there are large tracts of valuable land suitable for producing a very fine grade of tobacco.

INCREASED EXPORTATION OF HARD WOODS.

Hard woods are yearly being exported in larger quantities. There are extensive forests of valuable woods that have not yet been explored. Large capital and experienced persons are required to overcome the difficulties met in the transportation of these woods. With the extension of the present railroads and the completion of those under way it will be a great advantage to the development of wood cutting as well as other products. In the dry goods trade the United States continues to supply the greater part of the demand.

Codfish, salt pork, beef, flour, herrings, cooking butter, and lard are all received from the United States. Table butter is imported for the most part from Copenhagen and Germany in 1 and 2 pound tins. The United States has not yet been able to furnish this article and give satisfaction. The grade of American butter changes, while the European article is always the same grade. The importation of cheese

is divided between the United States, France, and Germany. The largest importations of canned goods come from the United States; France and Germany furnish some, such as sausages, paté de fois gras, and other expensive kinds.

A large amount of laundry soap is being made in the country; the materials for making it are imported from the United States. However, a large quantity, of a better quality, is imported and it commands a higher price. France has the largest trade in fancy toilet soaps, yet the United States furnishes much of this article. The United States has almost the entire trade in carriages and harness. The native lumber is a small supply. The United States continues to supply most of the demand for pine.

FOREIGN COMMERCE.

CLASS OF IMPORTS FROM UNITED STATES.

Consul L. W. Livingston, of Cape Haitien, writes that practically all the imports into Haiti come from the United States, England, France, and Germany, in the order named.

The great bulk of imports from the United States consists of provisions, kerosene, tobacco, drugs and medicines, cotton goods, leather, carriages, shoes, machinery, etc. England supplies cotton and woolen goods, alpaca, crockery, roofing material, and other articles. The greatest variety of goods come from France.

Considerable logwood is exported, quite an amount going to the United States. Practically all the coffee and cacao goes to Havre, France, although the ultimate destination of a large proportion is Germany. After the ratification of the reciprocity treaty between France and Haiti, Germany applied the maximum tariff rates to Haitian coffee, which prohibited its importation into that country.

TRADE AT PORT DE PAIX.

Consular Agent Carl Abegg, reporting from Port de Paix, says:

Imports have increased slightly, but consist only of the very cheapest grades of goods, with very few exceptions. England supplies cotton goods, prints, coffee bags, corrugated iron, porter, and stout; Germany, matches, iron pots, hats, vinegar, mineral water, and bottled beer; France, wine, olive oil, perfumery, cigarette paper and tobacco, millinery, etc. The total of these imports amount to one-tenth of those from the United States. Among the articles arriving from the United States was a plow, the first one to be landed here. The exports consists of cedar wood, lignum-vitæ, and sisal.

The island of Tortuga has been leased by a Belgian company which will establish plantations thereon. The company has the privilege of cutting the timber on the island.

NEW AMERICAN RAILWAY.

Consular Agent J. W. Woël, of Gonaives, reports that one of the most notable concessions ever granted to foreigners by the Haitian Government, was that for the building of a railroad from Gonaives to Hirche, with a branch to Gros Morne.

The total length of the road will be about 100 miles. The company, which is made up chiefly of Americans, also obtained a land grant of

one and one-half kilometers (0.93 mile) on each side of the line for the purpose of cutting ties and providing lumber. This grant only holds good when the railroad passes through Government property. It also includes the right to build telephone and telegraph lines and a wharf at Gonaives, and a steamship service around the island exclusively for the coastwise trade. To encourage the enterprise the Government guarantees 6 per cent interest on an expenditure of $24,200 per mile for a period of fifty years.

SAWMILLS IN REPUBLIC.

Minister H. W. Furniss, in a recent tour of Haiti, observed five sawmills in operation, mostly owned by Americans. [Addresses on file at the Bureau of Manufactures.] As there is a great quantity of good timber in Haiti, he adds that it would seem that there should be room for a few modern mills. There are practically no cross-cut saws in use, but a considerable number of handsaws are sold at all the coast towns. [A complete list of hardware dealers in Haiti may be had from the Bureau of Manufactures.]

CURAÇAO.

IMPORTS OF THE ISLAND.

According to the last half-yearly report of Consul E. H. Cheney the articles that were most prominent among the imports of Curaçao, West Indies, were: Beans, 9,403 bushels, valued at $188,333; coal, 34,147 tons, worth $82,427; corn meal, 211,423 bushels, value $109,166; divi-divi (tree pods used for dyeing and tanning), 5,934,716 pounds, worth $62,430; groceries, dry, $153,301; wet, $138,800; provisions, in packages, $51,687; hat straw, $44,169; cigarettes, $25,988; biscuits, $24,178; butter, $10,161; cattle, $12,395; flour, $73,579; gin, $16,210; rum, $14,777; salt beef, $12,060; brown sugar, $33,942; white sugar, $11,488, and tobacco, $25,806. The total imports for the six months amounted to $1,540,720.

CUBA.

IMPROVEMENT OF THE HARBOR OF HABANA.

A Cuban newspaper states that the announcement that an American syndicate about to be formed would put an end to the lighterage annoyances in Habana by the construction of a great pier for the landing of their ships, has been hailed with the greatest delight by all who are interested in simplifying transportation facilities in and out of the harbor, and that importers and exporters are unanimous in the opinion that such an improvement would do more for the prosperity of Habana and the whole island than any other improvement. The journal adds that in many cases it costs more to send and receive freight to and from the ships in Habana Bay than it does for the sea freightage to and from New York.

CENTRAL AMERICA.

NICARAGUA.

CONCESSION TO IMPROVE RIVER AND APPROPRIATE LAND.

Consul José de Olivares, at Managua, reports the granting of a valuable Government concession to Americans for the development of commercial, agricultural, and mineral resources in Nicaragua.

The concession is to Hernandez Somoxa, representing a New York company [address on file at the Bureau of Manufactures]. The company obligates itself to deepen the passage over the bar of the Rio Grande to fourteen feet in order that vessels suited to the banana and fruit trade may enter the stream, and is granted the period of four years in which to complete the work, which shall represent an expenditure of not less than $100,000 gold. Within eighteen months the company shall run its first steamer on the river, and thereafter keep up navigation for all the time the concession is in force. The company agrees to construct a wharf and a custom-house at the mouth of the river, upon the completion of which the Government will declare the place an open port with the name Port Zeláya.

The right to denounce and acquire 50,000 manzanas (about 86,500 acres) of land suitable for banana growing along the river and its tributaries is allowed the company, which land may be subdivided into lots of 100 or more manzanas each. Special rights and privileges in this connection are provided for colonists whom the company proposes to induce to settle upon their lands, it being stipulated that such shall be exempt for a period of ten years from the payment of duties on all domestic necessities, machinery, and live stock, and that their property and products be exempt from tax and, with a few exceptions, from export duties.

IMPROVING NAVIGATION.

For the purpose of facilitating the loading and discharging of cargo during the period in which the bar of the river is being opened the company binds itself to construct a wharf and warehouse on Man-of-war Key, an island close by in deep water, which shall constitute a part of Port Zeláya. After the river improvements have been consummated the structures on said island are to be maintained as a safeguard to commerce and navigation in the event of accident or damage to interior waterway facilities.

The foregoing summary of the contract relates to a section of this Republic that is celebrated for the richness of its agricultural lands, its undeveloped mineral resources, and opportunities for extensive water transportation. At a distance of 80 miles inland from its mouth the Rio Grande is reported to have a good navigable depth. The main river, its branches and tributaries, covered by this concession, penetrate a large territory. Wild rubber abounds along the banks of these streams, as also valuable hard woods, such as mahogany, cedar, rosewood, etc., which latter the company and its colonists are granted the right to cut for domestic purposes. It is estimated that over $50,000 gold per month is produced by miners in the mineral zone extending through the central part of the Republic bisected by the Rio Grande water system.

SOUTH AMERICA.

URUGUAY.

RIVER PLATA COUNTRY.

DIRECT STEAMSHIPS AND BANKING FACILITIES NEEDED.

Consul J. W. O'Hara, of Montevideo, reports on the methods to be employed to enable the American manufacturer and exporter to secure a larger share of the trade of Uruguay and the countries tributary to the River Plata. He writes:

I have been requested to give in some detail the methods to be employed to enable the American manufacturer and exporter to secure a larger proportion than they now enjoy of the markets of Uruguay and the countries tributary to the River Plata.

In my opinion the first and most important requisite is that the American manufacturers and exporters be in real earnest, that the same methods be employed, the same energy and capital be expended in securing these markets, that would be devoted to the promotion of any other enterprise from which ample returns were to be expected.

First of all, there should be established and maintained between New York and the River Plata a first-class line of steamships, with ample accommodations for passengers, mail, and cargo.

Second. There should be established a banking house, conducted by Americans, employing American methods, with headquarters in this city or Buenos Aires, and with branches in all the surrounding cities of importance.

Third. American capital should be invested in enterprises of improvement and development such as railroads, street-car lines, river steamship lines, mines, and contracting.

Fourth. American commercial houses selling American products at wholesale and retail, and managed by thoroughly qualified American business men, should be established in all the principal cities.

Fifth. American salesmen of character, ability, and experience, able to speak Spanish, should visit the customers at least once a year.

DIRECT STEAMSHIPS WOULD PAY.

The first question that will naturally arise in the mind of the capitalist with money to invest, the manufacturer seeking a market for his surplus products, and the exporter desiring to extend his business is, Will it pay? A first-class line of steamships, plying between New York and the River Plata, with ample accommodations for passengers, mail, and cargo, would not at the outset yield such dividends as would be satisfactory to investors unless given additional assistance. But its continued existence would foster and extend a trade that would in time bring rich results. It would inspire these people, who are growing more friendly toward us, with confidence in our commercial ability, and answer the question which has often been asked by them

on seeing the flags of so many other nations constantly in these waters, "Where is the American merchant marine? If Americans desire an interchange of trade with us, why do they not exhibit it by sending their ships?" The people here admire the "Great Republic of the North," and Secretary Root's recent visit has increased their interest. Frequently the desire is expressed to visit the United States, but they can not afford the time to go by way of Europe, and there are no first-class accommodations direct.

STEAMSHIPS TO EUROPE.

The steamers going to Europe are numerous, but to secure passage on the best you must purchase a ticket some time in advance, usually several weeks. Many of these passengers would prefer a trip to the United States if it were as easy as a trip to Europe. But it is only some one who has a special object in view who will submit to a passage on a tramp steamer making 9 or 10 knots an hour, or to transshipping and its consequent delay and inconveniences. This is true of our own people as well as our South American friends, and I believe that if a first-class steamship line were established between the two continents many of our own people of leisure, wishing to escape the rigors of a northern winter, would take advantage of the opportunity thus offered to spend a few months occasionally in this delightful climate. And some of these people, seeing chances for profitable investments, would become permanently interested, thereby increasing trade relations, all of which would accrue to the benefit of the steamship company.

The Uruguayans, by reason of environment, race, and language, naturally prefer a trip to Europe. In business they are more closely associated, and their associations are of a character that tends to stimulate friendship. Europe buys their bonds, builds their railroads and street-car lines, furnishes a large amount of their banking capital, and, after investigating the financial standing of their merchants, gives long credits to the deserving ones. In spite of these conditions, however, they feel that they belong to the Western Hemisphere and that the pride they feel in the accomplishments of America would make them willing to enjoy a closer friendship with us, and they are hoping for a speedy improvement in communications.

MAIL SERVICE.

The mail service as it exists is one of the serious drawbacks to trade, as goods must be ordered from three to four months ahead of delivery, while from Europe a little more than half this time is sufficient. Mail has on some occasions within the last three months been received forty-five days after the date of mailing at the New York post-office. It is believed that the great resources of the country will be rapidly developed, and this makes it a propitious time for American enterprise to introduce itself and come self-conveyed. I am sure it would be met with greater respect and receive more favorable treatment. The flag that represents our country is seldom seen in these waters, except on some sailing vessel bringing lumber to this port. Of the 3,503 vessels of all classes entered at this port in 1905, only 14 are given as American, while England was credited with 1,414.

BANKING FACILITIES NEEDED.

The establishment of a first-class banking house in some convenient location, with branches in all the leading commercial cities, would not

only be a means of improving confidence in the oft-repeated declaration that the American people are earnestly and honestly striving to secure a fair proportion of the commerce of the South American countries, but it would be such a convenience as would remove one of the great obstacles operating against the proper realization of that object. All business with American houses could be satisfactorily arranged through such a bank, and the difficulties now so frequently confronting local business houses, and so bitterly complained about in matters of credits, discounts, drafts, etc., could then be satisfactorily arranged, and in such a manner as to promote more friendly commercial relations. It is, perhaps, not so much a question of the convenience of such an institution that would appeal to the investor as the question of proper remuneration for the capital invested.

After a careful examination of the reports of the boards of directors of many of the foreign banking establishments doing business in various cities of South America, and knowing the way that the banks are patronized, I have no hesitancy in saying that if an institution of that character is properly managed there is no doubt that it will yield the investor ample returns in dividends. One banking house with head offices in London, and with several branches in different cities of South America, last year reported dividends of 20 per cent on the capital stock after carrying over $384,000 to pensions, reserve, and benevolence. Another bank, after a total net earning of $1,377,220, declared an annual dividend of 15 per cent, and carried forward for reserve and other funds $832,172. These are fair examples of the results of the banking business in South America. The English have four banks, the Germans, Spanish, French, and Italians each one, and all show large earnings. I know of no good reason why an American bank would not be profitable, as well as a convenient aid to business and a stimulating influence for commerce.

OPPORTUNITIES FOR MERCANTILE ENTERPRISE.

In order to obtain the proper influence and establish American capital in a formidable position with these people it will be necessary to adopt the same methods that the business and influential people of other nations have adopted—invest money in public enterprises that tend to the upbuilding and general development of the countries. Whatever may be said of the general advancement of the countries tributary to the River Plata region, they are still in a condition of primary development. The people are willing and even anxious, but they lack the financial ability necessary for proper development of their resources. Uruguay is a naturally wealthy country. Its climate is unsurpassed, the soil is for the most part fertile, its pastures can not be excelled. Its rivers are numerous and so distributed as to furnish ample power and be available for general navigation. Its mines are rich in gold, silver, copper, iron, and lead. It has an area equal to that of the State of Nebraska, about 1,000,000 people, and four or five good ports. It has less than 1,000 miles of railroad and not one-half that length of river open to navigation.

The agricultural interests need to be developed by modern methods of agriculture, and better animals and more care are required in the stock-raising department. The animal product should be properly prepared for the market. More railroads should be constructed, the mines should be worked, and the rivers improved. The commercial

countries of Europe have all made investments here and contributed to the general development, and those investments have been, in most cases, exceedingly profitable. And if we are asking equal favors we must offer equal inducements. What is said of the advantages and opportunities of Uruguay may be said with equal or greater truth of Argentina. Its soil is richer, and its pastures are as abundant and as fruitful. Its climate is all that could be desired. Its rivers are extensive and important. Like Uruguay, it is a great agricultural and stock raising country. It has more than four times the area of the State of Texas and less than one-third more population. It has extensive areas adapted to the successful cultivation of wheat, corn, and cotton. The population is rapidly increasing, and ample opportunities are offered for profitable investment in commerce or public enterprises. Already there are arrangements being made for the extension of railroads and for the construction of new ones. These are necessary for the proper development of this vast extent of country, and American capital should be invested.

RIVERS AND FORESTS.

Urúguay and Argentina are certainly far in advance of the countries tributary to the upper part of this river system, namely, Paraguay, southeastern Bolivia, and a part of the State of Matto Grosso, in Brazil, an area of some 600,000 square miles. These have fine tropical climates, rich virgin soil, vast forests of valuable timber, and numerous navigable rivers, extending well into the interior, and in some instances more than 2,000 miles from the mouth of the River Plate, and with numerous waterfalls, some of which are greater than that of Niagara; rich mines of gold, silver, copper, coal, and iron, all awaiting energy and capital. The forests are well supplied with good merchantable timbers, such as rosewood, lignum-vitæ, pekea, acajou, cedar, anjica wood, brazil wood, quebracho, vinatico (a hard wood resembling mahogany), and various dye and cabinet woods. The products of these countries are needed now by the American manufacturer, and as time advances and our trade extends there will be a greater demand. The timber, dyewoods, rubber, and coffee will be needed by our people, and now is the time to begin the preliminary work of securing a portion of these products if we expect to be able to compete with the European.

NEED OF AMERICAN COMMERCIAL HOUSES.

American commercial houses should be established in all the principal cities of these countries, in which should be displayed such American goods and machinery as are suited to the demands of the people. A careful study of the local situation, needs, and conditions by practical men would indicate the classes of merchandise needed, and these should be kept in stock in sufficient quantities to supply the local requirements, avoiding serious delays. With such establishments located in Montevideo, and Buenos Aires, the trade of the interior adjacent to the rivers could be supplied. The commerce in Bolivia, western Brazil, and portions of Paraguay is now largely a system of barter, manufactured goods being exchanged for furs, skins, and rubber.

LACK OF AMERICAN ENTERPRISE.

There is not an American mercantile house in this city or in this country. There is one American business man here, but the head of

the house is an English exporter whose principal place of business is in London. There is not an American article sold in this market that could be replaced by a similar product from any other country; in other words, American articles sell themselves. American-made articles are sold here in comparatively large quantities, but they are not pushed if articles manufactured in the salesman's own country can take their place. Mercantile business in this country has been and still is very profitable, and there is no good business reason why the American merchant should not have some share of the profit. The merchant and manufacturer of every other nation bring their products, supervise their sale, manage their business, study the wants and conditions and accede to them. We send our products to a foreign merchant to sell in competition with the products of his own country, and yet we are not satisfied with the results. Well-supplied retail department stores, conducted on American lines with American equipments, would not only be sufficiently profitable but at the same time would serve as an advertisement for American goods and methods.

AMERICAN SALESMEN NEEDED.

American salesmen who can speak Spanish, with thorough knowledge of the goods they represent, and who are willing to spend sufficient time in the country to study the needs of the market, are needed. These salesmen should be men who are satisfied to adapt themselves to conditions as they find them. They should not only visit the larger cities, but they should go into the interior, meet the smaller dealers and the people in general, carefully study conditions, and when they return to the factory they will be able to interest the manufacturer in producing those articles that are most in demand. The young German salesman will spend months in the interior of South America, and the result of his painstaking investigation and study of conditions is apparent in the rapid strides his country is making in this portion of the commercial world.

BRAZIL.

THE PAPER TRADE.

AMERICAN SALES CONTINUE ON A DOWNWARD TENDENCY.

Consul-General G. E. Anderson, of Rio de Janeiro, shows that American paper manufacturers have little part in the paper trade of Brazil, apparently largely their own fault. He writes:

Not even have they held their own in Brazilian paper imports. On the other hand, the imports of paper and paper manufactures in Brazil are increasing, and the trade seems to be profitable. About three-fifths of the entire trade of the country in paper is with Rio de Janeiro, and about one-third of the entire imports are from Germany. The United States had considerable part in this trade for a time, but failed to watch it. Exports of paper from the United States to Brazil seem to have reached their maximum point in 1903. In 1905, out of a total of paper imports of $3,369,583, the United States sent a total of only $137,042, as indicated by the following table:

Kind of paper.	Total imports.		Imports from United States.	
	Pounds.	Value.	Pounds.	Value.
Playing cards, engravings, and photographs	126,722	$51,764	3,779	$2,182
Books, newspapers, and periodicals	1,375,700	498,540	103,353	21,927
Lithographs, bills, visiting cards, envelopes	481,877	254,511	89,427	40,427
Paper for uses not specified	19,148,624	1,014,064	269,757	22,167
Writing paper	3,604,326	361,506	39,989	5,535
Paper for printing	24,740,707	836,847	1,211,555	35,714
Millboard and cardboard	4,878,533	178,380	96,544	4,170
Paper manufactures not specified	907,135	173,971	51,290	4,920
Total	55,263,624	3,369,583	1,865,694	137,042

Germany has about 75 per cent of the trade in playing cards and card stock, photographs, and engravings. In books, newspapers, and periodicals France has been sending about 50 per cent, Portugal 15, and Germany about 12 per cent. Of the articles under the head of printed matter, unenumerated (lithograph bills, envelopes, etc.), Germany sent about 40 per cent, the United States about 39 per cent, and France about 14 per cent. In this item the United States sent only $40,427 in 1905, as compared with $96,511 in 1904. This is the chief item of the American paper exports to Brazil. Of the imports of paper for uses not specified, Germany sends about 33 per cent, Belgium 25 per cent, and Sweden and Norway 20 per cent. Of writing paper Germany sends about 40 per cent, Austria-Hungary 16 per cent, and Italy about 25 per cent. Of the paper for printing Germany sends about 37 per cent, Sweden and Norway about 24 per cent, Belgium 15 per cent, and the United States about 4 per cent. The United States in 1905 sent paper of this class to the amount of $35,714, as compared with $36,692 in 1904. Of the millboard and cardboard Germany sends about 70 per cent, and of the paper manufactures not specified Germany sends about 60 per cent, France about 16 per cent, Great Britain about 8 per cent, and the rest scattering.

ATTENTION TO TRADE DETAILS.

So far as I can learn the chief reason for the falling off in American exports to Brazil in most of these classes is the failure of American manufacturers to pay any attention to the special needs and conditions of the Brazilian market. In some lines of paper goods, like printed matter, for instance, it is hardly to be expected that the United States, as an English-speaking country, will have much opportunity to furnish Portuguese reading matter. At the same time the fact that France has much the lead in such goods indicates that not everything is to depend upon the matter of language. It should be added that French literature and periodicals, French fiction, and French publications generally are popular among the educated classes in Brazil, and this class can be reached through the medium of the French language better than any other except their native Portuguese.

In the way of box paper, writing paper, and similar goods, it seems that European manufacturers can place their goods here more cheaply because of the element of cheap labor in packing more than anything else. European manufacturers also pay more attention to the special tastes of the Brazilian people, to fancy and even loud decorations, to special ways of displaying their goods attractively in the original pack-

ages; in short they cater to the Brazilian trade as well as other foreign trade, which the paper makers of the United States do not. The chief reason why American quire papers, legal paper, official stock, and similar goods are not bought seems to be that American goods are manufactured in different sizes from those obtaining here, and as usual where foreign manufacturers manufacture especially for the market they seek, while American manufacturers seek to sell abroad only what is left to them as a surplus of their manufacturing for the home market, the foreigner gets the foreign trade. I think that both from the prices of the several grades and kinds of quire papers here and from the general disposition of those who use such papers in Brazil American manufacturers could secure a good share of this trade by going after it.

PRINTING PAPER SITUATION—POOR AMERICAN OUTLOOK.

The chief element in the matter of printing papers, the item in these imports in Brazil, which has shown the greatest increase in recent years, and which will show the greatest increase in the near future, seems to be in the matter of credits. German and Belgium houses, and these handle practically all of the imports from Europe, including Norway and Sweden, give from four to six months' credits. In fact, they meet the needs of the trade in this line no matter what they are, arranging payments upon a comparatively low-interest basis which aids firms which otherwise would have to meet cash payments by bank discounts at high rates. In such goods the matter of interest often represents all the profit of the transaction. With the proper sort of representation in Brazil, American houses would have no real difficulty in meeting these conditions upon a basis similar to that common with the German houses. But such credit affairs can not well be arranged by correspondence, and without efficient agencies and proper representation it is safe to say that present downward tendencies in American trade will continue, so far as paper and other goods generally sold on a close margin are concerned.

NEW ENTERPRISES.

UNITED STATES AND CANADIAN INVESTMENTS.

Mr. Anderson further reports that an American and Canadian syndicate has purchased the São Paulo and Rio Grande Railroad, which connects the São Paulo country with the Rio Grande do Sul country.

This railroad represents the future railway interests of southern Brazil, in some respects the richest and most valuable portion of Brazil. It means the extension of American interests, and will lead to a general disposition of industrial and transportation concerns to look to the United States for support and supplies, and offers the beginning of a great trade opportunity, if American manufacturers will take advantage of it. This railroad purchase is one of the promising movements in behalf of American capital and enterprise in this country. The syndicate, which controls several enterprises in Brazil and in Mexico, has spent upwards of $25,000,000 in the purchase of concessions, franchises, and tangible property.

During the past two years the imports from the United States for its several works amounted to nearly $2,500,000. The actual work of

changing and developing the street-railway systems, power plants, electric-light stations, gas plants, telephone and other property owned by the syndicate will necessitate the expenditure of at least $12,000,000 in the United States. The railroad developments mean a continued use of American machinery and supplies, and consequently a permanent and growing trade.

Stockmen in certain localities in Brazil are importing from India zebus for breeding purposes in considerable numbers. Recently there arrived a consignment of 37 bulls and 7 cows, and an order for 50 other animals of the same breed has been given to stock raisers by other Brazilian breeders. These animals are very large and breed well for oxen needed for farming and traction purposes. They seem to take to Brazilian climate and grazing lands better than most breeds of cattle. The importation of these animals entails great expense, and it seems doubtful if the results will justify the cost.

Movements of American live stock in this direction are not many, the shipments in 1905 amounting to 481 head of cattle, valued at $132,555, out of a total importation of 42,714 head, valued at $1,203,873. When stock raisers learn how best to adapt American stock to Brazilian conditions the trade will be considerable.

BANKING PROFITS.

OPPORTUNITIES FOR AMERICAN FINANCIAL INSTITUTIONS.

Consul-General Anderson also reports that the banking field in Brazil can well be looked into and entered with profit by American bankers. A summary of his report follows:

Apparently the business is safe, in spite of the dangers which attend banking with an irredeemable currency, and certainly it is profitable. When it is realized that the vast bulk of international monetary transactions in Brazil are with the United States, the added possibilities of this business for American capital can further be appreciated.

There are a number of important banking concerns in Brazil, formed by home capitalists with more or less of Portuguese capital. The Bank of the Republic is a government affair and is subject to all the uses of such a governmental institution. The report of the director of this bank, covering the four-year period of the recent administration, shows a profit of only 500,000 milreis (the value of the milreis has fluctuated, at present being fixed officially at 30 cents American currency). The four foreign banks, however, with a total paid-up capital of $13,130,000, during the four years 1902–1906, have each paid dividends running from 10 to 20 per cent per annum, and besides have built up reserve funds equal to or exceeding their capital stock. The combined profits amounted to $10,055,800, and the reserve funds aggregated $10,902,257. The very large profits of the four foreign banks are in exchange, that exchange being largely on transactions involving purchases of goods by the United States and represents a triangular transfer of money or credits by way of Great Britain to and from the United States in which the latter country not only loses a profit but which would give American bankers an advantage in the banking business in Brazil if they once entered the field.

READMISSION OF ALIENS.

NEW LAW PASSED BY NATIONAL CONGRESS.

Brazil has a new law relating to admission of aliens and residence of foreigners in the Republic which is summarized as follows by Mr. Anderson:

A law as to aliens and affecting the rights of foreigners in Brazil which may be of far-reaching influence under certain circumstances has been passed by both houses of the Brazilian Congress and remains only to have amendments adjusted for its presentation to the President. The law provides in general that an alien may be expelled from Brazil for any act likely to endanger public safety or the public peace; also for criminal convictions (one abroad and two in Brazil); for proved vagabondage and begging expulsion is also provided. It is specified, however, that a foreigner can not be exiled from Brazil who has lived two consecutive years in Brazil, is married to a Brazilian, is a widower with a Brazilian child, or is a person possessing real property in Brazil. The Government establishes its right to refuse admission to a person whose antecedents show criminal convictions. A foreigner can not be refused admission if he has been away from Brazil only a short time on a temporary sojourn. A foreigner who is to be expelled is given 33 days' notice, but may be detained by the police during that period. The President may at any time revoke a sentence of expulsion.

GOVERNMENT PLANS.

ALCOHOL LAMPS AND MOTORS—PARCELS POST WITH UNITED STATES.

In the official budget issued at Rio de Janeiro by the Brazilian Government are the following plans and subventions:

The existing contract of the Lloyd Brazileiro can be changed in such a way as to improve and increase the service of this company without any additional charge to the treasury.

The Government is authorized to organize a regular service for propaganda of the mineral wealth of the country, especially as regards prospecting, and can, if it deems expedient, subsidize companies capable of undertaking this service.

It is also authorized to establish, by direct arrangement, the service of interchanging the parcels post of the Brazilian post-offices with that of the United States of North America as well as with any other signatories of the Postal Union.

The Governor of the State of Rio Grande do Sul has sanctioned the budget law for 1907, which authorizes a loan of $7,500,000 gold, $2,500,000 of the amount to be set aside for deepening of rivers and for quays at Port Alegro and improvements at other ports.

A grant is made of 50,000,000 milreis (1 milre equals 30 cents) per annum, maximum, to any shipping company which shall establish a regular service between Brazil and Japan for the development of trade between the two countries and the carrying of immigrants.

Provision is made for compensation to such company as undertakes a service of navigation along the southern coast of the State of Bahia, on the same conditions as those laid down in the contract with the company which maintains a similar service on the coast of Maranhao.

The minister of war at Rio de Janeiro, has approved the contract made in North America by the Brazilian commission with the Nemours Powder Company for the establishment of a smokeless-powder factory at Piquete, Brazil, at a cost of 280,000 milreis (milreis, 30 cents). The equipment will be shipped from New York.

Provision is made for a grant of 60,000,000 milreis per annum to the company or private individual who shall establish a regular service on the River Ibicuhy up to Cacique, touching at the ports of Sao Borja, Itaquy, and Uruguayana, with two ships and the lighters necessary for transportation of cargo, provided that the conditions established by the Federal Government are observed.

The President is authorized to enter into accord with the railway companies enjoying concessions from the Government and having pecuniary favors to promote the substitution of alcohol for petroleum for lighting of stations, depots, offices, etc. To faciliate this the President of the Republic will allow the purchase of lamps to be entered under working expenses and to permit the substitution on the Federal railways while this law is in force of alcohol motors for those of gasoline or petroleum.

CHILE.

RECONSTRUCTION OF VALPARAISO.

MANY MILLION DOLLARS TO BE EXPENDED—GOVERNMENT AID.

Consul A. A. Winslow transmits a copy of the law for the reconstruction of the city of Valparaiso, which was well received, notwithstanding it contains nothing relative to the free entry of building materials during the reconstruction period. The consul points out, however, that it furnishes a good opportunity for the sale of American building supplies. The law reads:

To repair the damages caused by the earthquake of August 16, 1906, in the city of Valparaiso, to preserve this city from inundations, and to improve its hygienic conditions, the following works shall be executed: 1. To open up in the Almendral district new streets, squares, and avenues, and to close, widen, and rectify the old ones. 2. To level the said district, giving to it the necessary height and fall. 3. To pave the streets and to construct footpaths in the said district. 4. To relay in the same district the gas, water, and drainage piping, and the tram and electric-light lines. 5. To repair and reconstruct public educational and charitable establishments, parish churches, and other public buildings. 6. To construct culverts and other works necessary to preserve the city from inundations. 7. To open new streets or to widen and straighten the old ones between the Camino de Cintura and the foot of the hills in the form which best harmonizes with the topography of the ground and with hygienic prescriptions.

All the preceding works shall be executed in conformity with the plans and limits which may be approved by the President of the Republic, after hearing the municipality with respect to the works of a municipal character, and the prescriptions of the law of December 6, 1876, shall not be applied to these works.

The ground necessary for the execution of the works named in conformity with the plans which may be approved by the President of the Republic shall be declared of public utility. The expropriation shall be carried into effect in conformity with the prescriptions of the law of June 18, 1857. The maximum of time for initiating the expropriations shall be six months for ground in the level part of the city and two years for the grounds on the hills, in both cases the time to count from the promulgation of this law. The owners of lots adjoining streets that may be suppressed and which by this suppression may be deprived of access to a public thoroughfare

shall be entitled to have their property bought by the State, the price to be arranged in the form established in this law for expropriation.

HOW MONEY IS TO BE SECURED AND EXPENDED.

The expenses incurred in carrying out this law shall be defrayed: 1. By the State with funds provided by a loan of $5,353,000 bearing in mind, however that the sum of $1,460,000 is to be devoted to the repair and construction of public buildings. 2. By the owners, who will pay one-half of the cost of leveling and paving the streets and the construction of footpaths in front of their respective properties, in the form prescribed in law No. 1463, of June 11, 1901; those who prefer not to pay will be entitled to have their property bought at a fair valuation. (3) With the proceeds of the ground expropriated or purchased, which may not be necessary for streets, squares, or public services. These grounds shall be sold by public auction, with the exception of those which may be taken from public thoroughfares and may cover part of the actual properties, which shall be sold to the adjoining owners at a fair valuation made by experts; and, (4), By the municipality of Valparaiso for the balance, if there should be any, and for this purpose it shall contract loans with the guarantee of the property tax, and it is hereby empowered to raise this tax to 5 cents per 1,000 during the existence of these loans. The loans and the increase of the tax must be approved by the President of the Republic only. The increase in the rate of the property tax over and above 3 cents per 1,000 shall be devoted exclusively to the loans which may be raised by virtue of the preceding authorization. The part of the property tax intended for the service of the said loans is hereby declared exempt from attachment.

A commission, composed of the intendent of the Province, the mayor of the municipality of Valparaiso, and of five more persons to be designated by the President of the Republic, shall have charge of the direction of all the works and of all the acquisitions and expropriations of grounds to be made in fulfillment of the preceding articles, and it shall proceed in conformity with the orders and instructions of the President of the Republic.

The President of the Republic is authorized for the term of two years to contract a loan for $5,353,000, at a rate of interest not to exceed 4½ per cent per annum, and with a cumulative sinking fund of 2 per cent per annum. Until he can dispose of the funds to be obtained from the loan authorized in the preceding section, the President of the Republic is hereby empowered to emit treasury bills to bear interest at 6 per cent per annum, and with a cumulative fund of 4 per cent per annum, to be redeemed at par with the proceeds of the loan. The proceeds of this loan and $1,460,000 of the loan contracted in February, 1906, shall be employed exclusively on the Valparaiso works.

Consul Winslow adds:

Here is an opening for a large amount of building material, especially of cement, iron and steel, glass and builders' hardware, paints oils, etc. There is no question but what matters will be pushed here for the next few years along the building line, and now is the time for American interests to get a better foothold. More substantial structures will be erected. More cement and brick and iron and steel will be used.

The following commission has been appointed to assist the governor of the Province and the mayor of the city in carrying out the law in conjunction with the President: Messrs. Domingo Victor Santa Maria, Alejandro Bertrand, Santiago Lyon, Alejo Barrios, and Francisco Valdes Vergara.

IMMIGRATION MOVEMENT.

EFFORTS TO OBTAIN EMIGRANTS FROM SPAIN—INDUCEMENTS OFFERED.

Consul Winslow also reports in regard to the efforts being made by the Government of Chile to secure immigrants, to which allusion has been made in previous reports. The consul writes:

The Chilean Government has placed 550,000 pesos, or $165,000 United States gold, at the disposal of the President to be expended in

securing immigrants for this Republic. It is proposed to pay their passage to this country and to find them employment on arrival. Of this sum, $15,000 United States gold is to be expended to provide a home for immigrants at Valparaiso, where they can be temporarily provided for. This is a very important move and means much for the future of Chile, as nearly every undertaking in this Republic is suffering for want of workmen. It is proposed to bring in from 5,000 to 10,000 men this year if possible, and if the scheme proves successful the appropriation is to be materially increased.

Liberal land grants have been made to corporations with the understanding that a certain number of immigrants shall be located thereon within a certain time. This scheme is meeting with fair success.

IMMIGRANTS FROM SPAIN.

Mr. P. San Mateo, a native of Spain and for eighteen years a resident in Chile, has presented to the Government a proposal to bring 5,000 or 10,000 Spaniards to work as skilled and unskilled workmen. The conditions are that each man shall sign an agreement before the Chilean consul in Spain before emigrating to Chile, setting forth the particulars of his trade, etc.; the immigrants are to arrive at the end of eight months and to be received by a commission named by Mr. San Mateo on their arrival in Valparaiso; each man to be free to work for whom he will, the same as any other person; expense of transit of immigrants and their families (if any) is to be borne by the Government. It is further proposed that Mr. San Mateo and his wife shall be returned to Spain and given a bonus of at least $3 for every accepted adult immigrant introduced into the country. In order to secure the fulfilment of his promises Mr. San Mateo agrees to erect a bathing establishment at Valparaiso for the convenience of the immigrants at an expense of $6,000.

BANKING.

MONEY IN GOOD DEMAND AT NINE TO FOURTEEN PER CENT.

Mr. Winslow further reports that the banking interests of the Republic of Chile are doing a very prosperous business, with deposits on September 30, 1906, of 376,997,423 pesos, or $113,992,268 United States gold, on a capital and reserve fund of 170,421,121 pesos, or $51,126,336 United States gold.

At that time the cash on hand amounted to 75,300,956 pesos, or $22,590,287 United States gold, of which 5,096,138 pesos, or $1,528,841 United States gold, was in gold or silver. The loans amounted to 422,266,645 pesos, or $126,679,994 United States gold.

Of the 25 banks in Chile, 13 are either located in Valparaiso or have important branches there. Several of them pay from 3 to 6 per cent interest on deposits, as follows: At sight, 3 per cent; on current account, 3 per cent; two or three months, 4 per cent; four months, 5 per cent; and six months, or thirty days' notice after three months, 6 per cent. Interest settlements are made the last of June and December.

The bank loan rate is from 9 to 12 per cent, and in a few extreme cases it was even found to be higher. The usual rate for individual loans is from 10 to 14 per cent, and in some cases 3 per cent per month is paid. There is a good opening here for money, and it will pay investigating.

ARGENTINA.

LAND LAWS AND REGULATIONS.

NEW REGULATIONS TO GOVERN PUBLIC-LAND LEASES.

Consul-General A. G. Snyder, of Buenos Aires, transmits the following summary of the new regulations recently adopted to carry out the land law of Argentina. He says:

This law gives the lessee of public lands who has complied with the conditions of his lease the right to purchase up to one-half of the land so leased. The new regulations state that the price to be paid for the land shall be fixed in the lease, as it would not be fair to expect the tenant to pay a greater price at the end of his term as a result of improvements and increased value given to the land from his own work. The right of purchase was, however, only intended for the original lessee, and article 42 of the regulations now provides that half the land belonging to the State is to be free from such obligation if it should be decided to renew the lease of the land at the expiration of the former contract. All lots up to 2,500 hectares (1 hectare equals 2.47 acres) which are offered for direct sale for pastoral purposes must be duly measured and surveyed, and the sale must take place within ninety days of the publication of these details. The purchaser of a lot must, within two years, place thereon 500 sheep or goats and 80 cows, put up the necessary buildings, and plant 100 trees, also pay cost of measurement of the lot. No person or syndicate can lease more than 20,000 hectares; the term is for five years and leases are nontransferable.

COLOMBIA.

MARKETS OF REPUBLIC.

A BOGOTA MERCHANT GIVES SUGGESTIONS TO AMERICANS.

Mr. Leopoldo Montejo, of Bogota, Republic of Colombia, South America, who recently visited the Boston market, gave to the Shoe and Leather Reporter the following interview in regard to his country:

There are three shoe factories in the country equipped with American machinery, and there is another factory with German machinery, which is my own, but which I am to replace with American machinery. The shoes that are most ordinarily worn are brought from France. On the coast American shoes are generally worn. The shape of the American shoe is not popular in the interior. By the data I have been able to gather I think that at least between 20,000 and 25,000 pairs of shoes are sent from the United States into Colombia.

I think Colombia produces the best hides, but they go to England and France, principally. We send to the United States about 120,000 hundredweight of hides, which are reputed to be of the finest quality. We also send a large amount of goatskins, which are known also to be the best in the market. There are, of course, two different kinds of hides and goatskins, those from the cattle and goats that are raised in the cold climate—on the plains, you might say—and those that are raised in the lower climates, which are of a very high temperature; those in the cold climate being the best.

GERMAN PROGRESSIVENESS.

I think the American market is not being pushed enough in Colombia. The German houses send representatives to live in the country for a good while, until they get quite well acquainted. Then they go through all the large towns and see the

needs of the people, after which they write to their houses in Germany and send samples of all goods that are needed in the country. On the other hand, an American representative is seldom, if ever, seen. You might give as an excuse for not sending representatives that the population is comparatively small, there being about 5,000,000 inhabitants. Perhaps it would not pay to send a man out; but I would suggest that by getting three or four different concerns, not competitors in the same line of goods, they could get a man and give him a thorough course of instruction in the different lines which he was to take, so that by clubbing together their expenses would become much lower. In this way your market would be much better known in Colombia.

PERU.

SHORT OF POSTAGE.

AMERICAN FIRMS OFTEN MAIL UNDERPAID FOREIGN LETTERS.

Consul-General Samuel M. Taylor at Callao, Peru, recalls attention to the prejudicial effects on trade by the failure of American exporters to place sufficient postage on their foreign business correspondence.

He states that it is not only aggravating to the business man in foreign countries, who receives the letter, to be compelled to pay twice the original cost in order to be permitted to open it and ascertain that its contents are wholly concerned with the interests of the sender, but it inspires him with a general lack of confidence in the individual or firm so indifferent to good business instincts. Mr. Taylor cites the following as an example which has lately been brought to his attention:

A gentleman received from a business man in the United States a letter which was short of postage. The entire subject-matter of the letter concerned the interests of the American; in fact it was a letter of inquiry. The gentleman who received and paid for it courteously answered with valuable information, but took occasion to make reference to the short postage which he had paid. His American correspondent wrote him a profuse letter of thanks and apology, assuring him that it would not happen again, yet the letter of apology was itself short of postage.

BOLIVIA.

QUOTING PRICES FOR EXPORT GOODS.

The British consul at Sucre, Bolivia, calls attention to the importance of quoting net prices for goods delivered at port of entry. He suggests as a model an assumed Irish invoice for a specific quantity of mineral waters with delivery at Antofagasta, with the equivalent cost of the whole in Bolivian currency at an approximate rate of exchange. The consul adds:

This goes a long way ahead of mere advertising, as it facilitates the reckoning of cost to an interested buyer, and does away with the many items of uncertain quantity, such as agents' commissions, freight to Liverpool, transshipment, etc.

OCEANIA.

COMMONWEALTH OF AUSTRALIA.

THE MARKET FOR FURNITURE.

AMERICAN SALES IN CERTAIN LINES COULD BE EXTENDED.

Special Agent Harry R. Burrill, writing from Melbourne, says that American chairs, desks, and tables are extensively imported into Australia, and have attained wide popularity because of the excellence of their quality, attractive designs, and reasonable cost. He continues:

With the exception of these three articles, however, it must be admitted that the quantity and value of furniture exported from the United States to Australia are insignificant as compared with the importations from England and other manufacturing countries. Importers and dealers alike assert that the one great and apparently almost insurmountable difficulty in the way of establishing a profitable market for American-made furniture, other than chairs, desks, and tables, is the design.

The tastes of the Australians differ but little in any part of the Commonwealth and so, in New South Wales or Western Australia, Queensland or Victoria, South Australia or Tasmania, may be found an active and insistent demand for furniture made up in English patterns. Whatever may be the cause—habit, preference for "home" manufactures, or style—the designs of the British manufacturers have a hold on the market that it would be a difficult if not a well nigh impossible task to break. Repeated efforts have been made by the importers of Australia to introduce and build up a demand for American designs in sideboards, bedsteads, bureaus, and other bedroom accessories in competition with English goods, but the attempts have all proved failures, more or less complete.

STYLES THAT ARE POPULAR.

Australian importers and dealers are anxious to handle a greater variety of American furniture, and, with a view to attaining this end, they suggest that the manufacturers of the United States cater more carefully to the requirements of the Australian trade. This they regard as a not unreasonable request, inasmuch as the consumers are wedded to certain styles and patterns and will buy them to the exclusion of all others, because they represent their conception of properly made furniture. There is but one way of introducing successfully American-made furniture, and that is to imitate the popular English designs in sideboards, bedroom suites, etc., and export them to Australian ports.

If American manufacturers determine to adopt such a suggestion, they should bear in mind that large orders could not be placed imme-

diately, for it would require time to upset long-established custom, and the introduction of American goods would necessarily be slow. Dealers here, as a rule, would order only a small consignment at first, for they assert that the purchase of furniture in carload lots for the purpose of experimenting with the market would be an unwise business proposition. They unhesitatingly declare their belief, however, in the ultimate success of such an experiment, basing that belief on the quality and finish of the American-made furniture and the price at which it could be laid down at Australian ports.

INITIAL ORDERS ARE NECESSARILY SMALL.

Importers, with headquarters in the States of Victoria and New South Wales, who act as distributers for the entire Commonwealth, have called my attention to the disinclination on the part of American furniture manufacturers to fill small orders, and specific instances have been quoted, and correspondence shown, where a manufacturing company of the United States has refused to ship in less than carload lots. The Australian importers appreciate fully the extent of the American home market and the indifference to foreign orders that such a condition usually entails, but they fail to understand why, if manufacturers of the United States desire to expand their export trade, they decline to ship in the quantities required to those who would gladly undertake the task of building up that trade for them.

That the American manufacturers are reaching out for the furniture trade of Australia is conclusively shown by their admirable system of circularizing the trade, which is far more painstaking and complete than that of the English competitors. According to the importers the exporters evidently do not feel justified in encouraging the distributers here by shipping goods in small quantities, so that too heavy an initial expense may be avoided in the attempt to introduce them on the market

SOURCE OF IMPORTS—SUPERIORITY OF AMERICAN WOOD.

The Australian trade and customs returns for 1905 show to what a gratifying extent American furniture is represented on this market, but it must be remembered that the principal articles of import from the United States are those with which English, German, and Austrian manufacturers have found it impossible to compete. If, in addition to this, our manufacturers could secure their share of the $285,000 credited to England the field would certainly be a far more attractive one.

The following, showing the value of the imports of furniture for 1905 (the latest figures available), may be of interest to American manufacturers: From the United States, $300,000 worth; from United Kingdom, $285,000; from Germany, $205,000; from Austria, $60,000; from Japan, $55,000; from China, $30,000, and from Canada, $20,000. The import figures for 1906 will, according to the authorities, show approximately the same relative value, although the amounts will be greater.

The oak furniture of the United States has struck the popular fancy here, and that its use will steadily increase is confidently predicted by the importers of the eastern States of the Commonwealth. Another point in favor of the American furniture is the attractive appearance and durability of the finish. It is unsurpassed anywhere, and the workmanship is warmly commended throughout Australia. They

have only one fault to find with the finish, and that is, in the event of breakage during transportation they find it impossible to make the necessary repairs and then restore the original appearance of the surface.

Complaints are seldom heard about the American wood, which appears to stand the climate well. It does not shrink, twist, or warp, which in itself is a distinct advantage in this part of the world. There is a large and constantly growing demand for sideboards of English manufacture, notwithstanding the fact that the wood is liable to split, a defect well known but generally overlooked by the Australian purchaser. The reason for this unquestionably lies in the satisfactory designs sent out by the British makers. By copying these designs and imitating the general appearance of English sideboards it would not appear to be a difficult task successfully to compete with them, especially as the American wood will not split and is in various ways better adapted to the peculiarities of the Australian climate.

BRITISH CATALOGUES—METAL BEDSTEADS.

The manufacturers of the United States who desire to extend their trade with Australia have only to obtain the catalogues of the British manufacturers engaged in exporting furniture to this Commonwealth in order to perceive the differences between the two designs. This can easily be done, but in addition to this there will be forwarded to the Bureau of Manufactures an illustrated catalogue of one of the most successful of the English furniture exporting houses. [When received it will be loaned to manufacturing firms making application for it.] A study of these catalogues will give the American manufacturer a fairly accurate idea of the requirements of the trade here, and any additional information needed is readily obtainable through the responsible importers of Melbourne and Sydney.

These suggestions apply not only to sideboards but to all kinds of furniture used in Australia, with the exception of chairs, desks, and tables, which are imported from the United States, these American lines controlling the market. In the category of American-made goods popular in Australia hatracks might be included, but their sale, although showing a steady growth, has not yet assumed important dimensions.

Metal bedsteads are in universal use here, but this trade is controlled by England, with the Continent a rather poor second. In these articles, as well as in practically all kinds of furniture used in Australia, certain designs are popular and all others are viewed with indifference. According to the importers of the Eastern States of the Commonwealth, it would be difficult for the American manufacturers to compete in price with the English and Continental makers of these goods, even if the patterns were suitable for the market. This is a point, however, that the American manufacturers can settle with little difficulty by consulting foreign catalogues and communicating with Australian dealers.

SHIPPING COMPLAINTS.

Complaints are frequently heard that goods ordered from the United States are not shipped within a reasonable time or according to specifications. These are mistakes that can not be too speedily rectified, for they not only constitute a menace to the successful operation of a busi-

ness enterprise here, either wholesale or retail, but they work an injury to the American export trade from which it will be difficult to recover.

The packing is not satisfactory, despite the constant coaching of the Australian importers. Goods arrive here in a damaged condition simply because of the exporter's neglect of or indifference to the requests of his customers. Every precaution should be taken to insure the goods against damage during their long journey, and yet they are frequently packed with no greater care than would be shown if the shipment were subjected to a railroad haul of only a few hundred miles at home.

The additional expense of packing goods as they should be packed to withstand the rough usage inevitable between New York and Australian ports is so small that it certainly can not account for the lax methods of the exporters of the United States. The managers of export departments at home presumably know how to pack goods for export. Complaints are seldom heard of the arrival of goods from other manufacturing countries in damaged condition and it is difficult to comprehend why the United States has assumed such prominence in this direction. As this carelessness or indifference applies not only to furniture but to various other commodities exported from the United States it is obvious that there is an urgent need for immediate improvement.

TRANSPORTATION ADVANTAGE—TARIFF RATES.

A comparison of freight rates between the United States [Pacific coast] and the Eastern States of Australia and those between England and the Commonwealth shows that the American furniture exporter has an advantage of from $1.25 to $1.87 a ton over his British competitor. The landing charges, which do not vary, whatever may be the country of origin, amount to approximately $1.25 a ton wharfage, 75 cents a ton cartage, 25 cents a case or bale, cooperage, and stacking 16 cents a ton.

The customs duty on furniture still remains at 20 per cent ad valorem, although this commodity is included in the list of preferential duties adopted by the last Commonwealth Parliament, but which conflicted with certain treaties in force between England and other countries.

When preferential trade with England shall be finally established the importers of American-made furniture will pay 10 per cent higher duty than is paid on English goods, which will make the duty a little over 30 per cent. It must be remembered, however, that in preparing the list of articles to be included in the preferential trade proposition with England, the Australian government in no case lowered the existing rate of duty, but added 10 per cent as a discrimination in favor of the mother country.

In all probability the time is not far distant when the American manufacturer will have to devise some means to counteract the effect of a 10 per cent additional duty on the price of his goods laid down at Australian ports, but the belief is general here that this will not be a difficult problem to solve. The manufacturers of the United States control now a fair share of the furniture trade and according to the importers and dealers of New South Wales, the adoption of English designs in American work would make American representation on the market a still more gratifying and remunerative one.

AMERICAN CATALOGUES.

TONS ANNUALLY DESTROYED IN AUSTRALIA—REMEDIES SUGGESTED.

The following report from Special Agent Burrill, written from Sydney, furnishes information about catalogues and other printed matter sent through the foreign mails which will be serviceable to business men. He writes:

Tons of American catalogues are destroyed every year by the customs authorities of Australia for the reason that business men here to whom they are addressed by manufacturers and exporters of the United States decline to pay the duty of 3d., or 6 cents in American money, per pound, assessed on them as advertising matter imported for distribution. This is a loss which can not be estimated in dollars and cents. Because of negligence or unfamiliarity with the tariff provisions of Australia these descriptive circulars, catalogues, and price lists generally fail to reach their destination, and consequently all opportunity for trade which might be obtained through their perusal is lost. This useless waste of money, time, and opportunity can easily be avoided if American exporters who desire to circularize the trade will discontinue their present methods and adopt a system that will insure prompt delivery and acceptance of their printed matter.

REMEDIAL MEASURES.

The following suggestions are made after conferences with the Comptroller General of Customs, the Postmaster-General, and the Collector of the port of Sydney, and may be relied on as the best remedy to be applied:

If the American exporter has his Australian mailing list in the home office he should carefully address the catalogues, and then by the same mail he should send to the Comptroller-General of Customs, or the Postmaster-General, or the Comptroller of Customs at Sydney, Melbourne, Brisbane, Adelaide, Freemantle, or Hobart (Tasmania), as the case may be, a notification to the effect that he is sending to ——— by parcels post, via San Francisco or via London, ——— catalogues weighing —— pounds and inclosing ——— (dollars and cents, or pounds, shillings, and pence) in payment of duty.

The official receiving this communication, with preferably an international money order inclosed, will immediately notify the post-office authorities, and the catalogues will be forwarded to their destination without delay. The printed matter should be carefully weighed before it leaves the home office, and the money order, draft, or check sent to the Australian customs or post-office official should amount to 6 cents a pound full weight. This is the English method, and it has given uniform satisfaction.

CATALOGUES MAY BE CONSIGNED.

Another plan which may be suggested is that the catalogues be consigned to a representative in one of the ports of Australia with instructions that they be mailed immediately on their arrival. Accompanying the letter of instructions should be a money order sufficient to cover the customs charges. In this connection it would be well for the exporters of the United States to bear in mind that the postal rates in the Commonwealth for printed matter of this description are, not

exceeding 2 ounces, 1 cent; between 2 and 4 ounces, 2 cents; every additional 4 ounces or fraction thereof, 1 cent.

If an American manufacturer or exporter should desire to send out, in large quantities, catalogues or advertising matter coming under that head, it might be advisable for him to ship by freight from New York or San Francisco and consign the shipment to some house in Sydney which makes a specialty of wrapping and addressing. If this plan should be carried out the duty might be prepaid or the necessary papers, together with the amount of duty, payment for wrapping, addressing, and posting, and the list of names and addresses should be mailed to the consignee. For the information and convenience of any exporter who may desire extensively to circularize the trade, and whose object might be defeated if it were necessary to make arrangements through a correspondence requiring at least two months, attention is directed to a firm at Sydney, whose name is on file with the Bureau of Manufactures. It has branches in all the principal cities of Australia and New Zealand. The general manager assured me that the Sydney office or any of the branches will attend to all landing charges, and wrap, address, stamp, and mail the catalogues on receipt of the letter of instruction and the necessary remittance. The charge for wrapping and addressing would be 12s. 6d. or, approximately, $3.12 per 1,000 in American money.

FULL POSTAGE SHOULD BE PREPAID.

Great care should be taken to avoid short postage on Australian letters. Carelessness of this kind is a source of annoyance and no little expense to the business men of the Commonwealth, and they express opinions of such methods in no uncertain terms. They insist that there is no excuse for American houses making these errors, and, as an object lesson, point to the practice of several of the leading English shippers, who prevent mistakes of that kind by having special envelopes marked "Foreign Post" for their foreign correspondence.

Letters addressed to Australia require 5 cents for each half ounce or fraction thereof, and if this postage is not fully prepaid the addressee, under international postal regulations, is liable for the deficiency, and, in addition, a penalty of double the amount of the deficiency is exacted. Starting out an ounce letter for Australia with a 2-cent stamp affixed makes it a rather expensive luxury for its recipient here, and as a rule the correspondence ends then and there. Carelessness of this kind has unquestionably been detrimental to the expansion of American trade in the Commonwealth.

American manufacturers and exporters should understand that a large majority of the Australian houses have a standing rule that they will not accept catalogues, circulars, or other advertising matter on which duty is charged. They do, however, accept sealed letters on which they are penalized for insufficient postage, but it is safe to say that such acceptance has not proved successful in promoting business transactions between the American houses and their Australian correspondents. By abandoning such practices and adopting the suggestions of those who are on the ground and are thoroughly in touch with the situation, the manufacturers and exporters of the United States will not only remove an obstacle to trade but will do away with an unmitigated nuisance.

STATE OF VICTORIA.

STEADY GROWTH OF COMMERCE AND INDUSTRIES—RELATIVE TRADE WITH VARIOUS COUNTRIES.

Writing from Melbourne, Mr. Burrill describes the commercial and industrial progress of Victoria, the smallest but one of the most enterprising of the States in the Commonwealth of Australia. His report follows:

Victoria, of which Melbourne is the capital and port of entry, is the smallest in area of any of the States of the Commonwealth of Australia, but its importance can not be measured by its size. Victoria's commerce compares favorably with the trade of New South Wales, while it is far greater than that of South Australia, Western Australia, or Tasmania. Politically Melbourne is the Washington of Australia, as it is the seat of the Federal Parliament and the official home of the ministry and government departments. In addition to this a State government, under direction of a Premier and his Cabinet, controls the affairs of Victoria, and a State parliament, with powers similar to those of an American State legislature, enacts such legislation as may be required to protect and further its varied interests. The sentiment of Victoria is strongly in favor of protection, for within its boundaries may be found a greater number of manufacturing industries than in any other State, and possibly than in all the other States combined. It is the home of the Prime Minister, and among its public men are several of the ablest advocates of a protective tariff to be found in the Commonwealth.

The railways, telegraph lines, etc., are under the control of the government and so far as a fair return on the money invested in their equipment and operation is concerned the showing is regarded as satisfactory. The development of the great natural resources of the State, aided materially by the opening up of lines of communication to the seaboard, has steadily increased the prosperity of Victoria until it is now one of the richest as well as the most populous States in the Commonwealth.

FOREIGN TRADE REVIEWED.

The commercial progress of Victoria can be more readily understood by a comparison of the latest official figures for 1901, 1902, 1903, 1904, and 1905. The returns for 1906 are not yet available, but according to statistical authorities they will compare favorably with those of last year. The following table, roughly estimated in dollars and cents, shows the total value of Victoria's imports and exports and their value per head of population for 1901–1905 inclusive:

Year.	Imports.		Exports.	
	Total.	Per capita.	Total.	Per capita.
1901	$95,000,000	$78.50	$93,000,000	$77.50
1902	90,000,000	75.50	90,000,000	75.25
1903	89,000,000	73.75	98,000,000	81.50
1904	100,000,000	83.00	122,000,000	101.00
1905	109,000,000	91.00	113,000,000	93.75

From this compilation it will be seen that the trade of 1905 exceeds that of 1904, and that it shows a gratifying increase over that of the preceding three years. Compared with 1904 there is an increase in imports equivalent to approximately $9 per head of the population, but a decrease in exports estimated at $7.25 per head owing to decreased shipments of gold coin and bullion.

A comparison of the imports to and exports from Victoria shows, according to the Government statistician, that the proportion of the imports coming from the United Kingdom into the State was 38 per cent in 1901 and 1902, 33 in 1903, 36 in 1904, and 33 in 1905. The average contributions for the five years to Victorian imports by other countries were: The United States, 8 per cent; Germany, 4½; New Zeland, 4½; India and Ceylon, 3½; Belgium, 1; all others, 7½.

GREAT BRITAIN AND COLONIES.

Of the total exports the proportion sent to the United Kingdom was 29 per cent in 1901; 19 in 1902; 17 in 1903; 33 in 1904 and 1905. India and Ceylon took 4½ per cent in 1901; 7 in 1902; 18 in 1903; 11½ in 1904; 4 in 1905. South Africa shows a corresponding decrease in the five years, taking 21 per cent in 1901; 15½ in 1902; 6 in 1903; 4 in 1904 and 1905. On the average for the five years the United States took about 1½ per cent of the Victorian exports, Germany 3, New Zealand 2½, Belgium 2, France 5, and all other countries 3 per cent. The imports from Australian States averaged approximately 35 per cent of the total, and they took about 38 per cent of the total exports.

British countries contributed 80 per cent of the total imports in 1901 and 1902; 76 in 1903; 81½ in 1904; 85 in 1905; and took 87½ per cent of the total exports in 1901; 89 in 1902; 87½ in 1903; 85 in 1904; 83 in 1905. In each of the last five years exports were of greater value than imports in the trade with India and Ceylon, South Africa, Belgium, and France; but with the United States, Germany, and New Zealand, the value of imports was greater than that of exports. In 1904 there was an excess of exports, but in the other four years an excess of imports in trade with the United Kingdom. In interchange with the other Australian States there was an excess of exports in 1902, 1903, and 1904.

UNITED STATES, GERMANY, AND FRANCE.

In the five years under review, and leaving British countries out of consideration, the greatest trade of Victoria was with the United States. It amounted in 1905 to nearly $10,000,000, of which almost $7,500,000 represents imports. As compared with the year 1901, this trade has increased approximately $590,000, but its proportion to the total trade has diminished from about 5 per cent to 4 per cent.

The total trade with Germany in 1901 was approximately $5,750,000, and in 1905, $7,300,000, or about 3 per cent of the total in 1901 and 4 per cent of the total in 1905. The imports and exports for 1904 were nearly equal, but in 1905 the exports showed a considerable decline.

The principal trade of Victoria with France is in exports, which in 1905 amounted to approximately $7,500,000 as against imports valued at $600,000. The increase in the total trade in the five years

is estimated at $4,350,000. The proportion to the total importation in 1901 was 2 per cent and in 1905 nearly 4 per cent.

EXPORTS OF DOMESTIC PRODUCTS.

The distribution of the principal articles of export of Victorian produce, which include animals, butter and cheese, fruit, grain, bacon and ham, frozen meats, skins and hides, wool, other articles of merchandise, and gold (bullion and specie), for the years 1901 to 1905, inclusive, is shown in the following table:

	1901.	1902.	1903.	1904.	1905.
Australian States	$18,000,000	$20,000,000	$30,000,000	$27,000,000	$29,000,000
United Kingdom	20,000,000	10,000,000	12,000,000	30,000,000	22,000,000
Other British possessions	25,000,000	22,000,000	25,000,000	17,500,000	7,500,000
Foreign countries	7,000,000	5,000,000	6,500,000	10,000,000	11,000,000
Total	70,000,000	57,000,000	73,500,000	84,500,000	69,500,000

Of the Victorian produce exported, 26 per cent was sent to the sister States in 1901; 44⅓ in 1902; 41 in 1903; 31½ in 1904; 41 in 1905. Twenty-nine per cent was sent to the United Kingdom in 1901; 15½ in 1902 and 1903; 35½ in 1904; 31 in 1905. Thirty-five per cent was sent to other British possessions in 1901; 32⅓ in 1902; 34⅓ in 1903; 20½ in 1904; 11 in 1905. Ten per cent was sent to foreign countries in 1901; 7⅓ in 1902; 9 in 1903; 12½ in 1904; 17 in 1905. Compared with 1904 the total value of domestic produce exported in 1905 shows a decrease of approximately $15,000,000, or 18 per cent.

OUTPUT OF MINES.

Next to Western Australia, Victoria produced more gold in 1905 than any other State in the Commonwealth. The total value of the gold taken from Victoria fields since the first discovery in 1851 exceeds by approximately $1,000,000,000 that of Western Australia, her nearest competitor. According to the report of the Minister for Mines and Forests, the yield of gold in Victoria for the year 1905 amounted to 810,050 ounces gross, or 747,166 ounces fine, representing a value of approximately $15,900,000. The total output since the first discovery to the end of 1905 amounts to 68,367,403 ounces gross, with an estimated value of $1,370,000,000. Of the several mining districts in the State, Bendigo holds the first position, with a yield of 212,465 ounces. Ballarat is next with 145,331 ounces. Then follows Beechworth with 133,587 ounces; Castlemaine with 90,205 ounces; Maryborough with 85,768 ounces; Gippsland with 73,633 ounces; Ararat and Stawell with 23,651 ounces. In addition to this gratifying showing of the gold fields, there were over 155,000 tons of coal mined last year, valued at approximately $400,000 at the mines. The output shows an increase of about 33,000 tons as compared with the quantity produced in 1904.

The present high price of tin has drawn attention to the already well-known deposits of that ore in this State, and has stimulated prospecting for lode tin. The production of tin ore for 1905 increased considerably, although its value was only about $55,000, as compared with $25,000 in 1904.

PROMISING FUTURE.

In mining, agriculture, dairying, manufactures, pastoral and various other important industries, Victoria occupies an enviable position

among the States of the Commonwealth, and what is more gratifying still, her prosperity may be said to be steadily increasing. With her wealth, natural resources, and resourcefulness, her commerce, keen business instinct, and devotion to the welfare of the Commonwealth, Victoria should stand out conspicuously in the future development of Australia.

NEW ZEALAND.

LAST YEAR'S TRADE.

EFFECTS OF THE PREFERENTIAL TARIFF RATES.

The high commissioner of New Zealand in London has, according to the Financial Times, received from his government a cablegram containing the following statistics of the colony for 1906:

Population, 909,000; value of imports, $74,214,000; value of exports, $78,350,000. Principal exports: Wool, $32,484,000; frozen meat, $14,000,000; butter, $7,604,000; phormium, $3,776,000; kauri gum, $2,686,000; cheese, $1,664,000; output of sawmills, $10,220,000; output of grain mills, $5,144,000; output of breweries, $2,786,500, and output of bacon factories, $1,236,000. The number of sheep in the colony at the end of the year was 20,108,471; horses, 326,537, and cattle, 1,810,936.

A Wellington correspondent of the London (daily) Times states that with an increase of $10,000,000 in the value of New Zealand exports the colony could not well be otherwise than prosperous. Wool brought much higher prices and there was considerable increases in exports of cheese, sheep and rabbit skins, and hides. Concerning the effect of preferential tariffs he says:

"Though the volume of our trade with America is small, the figures are interesting as having a bearing on preferential trade with the mother country. The exports to America amount to $3,500,000, showing a slight increase during the last three years. The imports from America, amounting to $7,000,000, on the other hand, show a slight falling off. An examination of the figures leads one to the conclusion that the preferential tariff act of 1903 is largely responsible for this. The main decrease is in boots and shoes, there being a corresponding increase in the importations from the United Kingdom, and also in the importations from Canada and British Columbia. In our trade with Germany, which is also small, there is a 10 per cent falling off in imports, which totaled $1,350,000, and a considerable increase in exports, the total value of which amounts to only $189,500. In this case the decrease in imports appears to be only very slightly brought about by the preferential tariff."

In regard to the general prosperity of the people, it is added that the outlook for 1907 is particularly bright. The wool clip promises to be heavier and of better quality than it has been for some time past, and the output of dairy produce will, apparently, also show a considerable increase in value.

THE PHILIPPINES.

EXPORTS AND IMPORTS.

SCOTLAND STEADILY INCREASING SALES IN THOSE ISLANDS.

Consul R. W. Austin reports that the record of exports from Glasgow to the Philippine Islands for the quarter ending December 31, 1906, shows a considerable increase over the exports for the corresponding period of 1905, the increase being $189,421.

Of this increase $167,310 represents the purchase of cast-iron pipes to be used in connection with municipal improvements in the city of Manila. The increases are in the following articles: Chemicals, fire-clay goods, iron and steel, oils and paints, thread, whisky, and sundries. Under the heading of sundries were included such articles as drugs, soaps, powder, shot, paste, earthenware, shovels, picks, etc. The losses embraced cotton goods, machinery, provisions, and pig iron.

In order that the American manufacturers and exporters who are seeking a foreign market may have the benefit of the full returns for the quarter mentioned the following comparative statistics of Glasgow's exports to the Philippines are submitted:

Articles.	December 31, 1905.	December 31, 1906.	Articles.	December 31, 1906.	December 31, 1906.
Cotton goods	$193,127	$171,660	Iron (pig)	$2,279	$1,843
Chemicals	.....	645	Thread	51,101	97,507
Fire-clay goods	.....	583	Whisky	4,396	9,329
Iron and steel	3,810	173,259	Sundries	.....	2,744
Machinery	17,778	4,916			
Oils and paints	1,788	2,327	Total	275,392	464,813
Provisions	1,113	.....			

AMERICAN SHARE.

SEVERAL INFLUENCES CAUSED A DECREASE IN SALES.

The exports of the United States to the Philippines for the fiscal year 1906 showed a decline of $1,427,605 from the previous year. Concerning this the Bureau of Insular Affairs of the War Department says:

With the exception of French East Indies, shipments coming from the United States have suffered to a greater extent than those of any other country, the general decline showing a reduction of but 16 per cent in the value of total imports, while purchases of American goods fell off nearly 25 per cent. One explanation of this decline refers to the boycott of American goods by the Chinese. This is specifically given as the cause of reduced imports of American flour, and may be doubtless extended to other branches of trade inasmuch as the business of the islands is to a very considerable extent in the hands of the Chinese.

The most conspicuous item in this decline in American trade is to be found in that of cotton cloths, which represent one-third of the total. This is due largely to the unfavorable operations of the new tariff, amounting in effect to a discrimination against this important American manufacture in the import trade of the islands. The fiscal year 1906 about covers the period of operations of the tariff, under which imports of American cloth have declined from a $700,000 to a $224,000 trade. During this same time the general imports of cotton goods increased, the imports of 1906 having been $6,750,000, or a gain over 1905 of $324,000. Legislation for the purpose of correcting this condition has been enacted by Congress, and there are already signs of a reaction in these imports.

OTHER MERCHANDISE.

Other important losses in American trade are to be found to the extent of $171,000 in illuminating oil, and about the same sum in wheat flour, a decline in the latter case in the face of increased total imports that serves to emphasize the active competition which American flour is meeting at the hands of Australia. In the reduced beer trade the United States is also a loser to the extent of $76,000. American electrical machinery continues to control the market; the demand, however, is reduced by more than 50 per cent, with the American losses amounting to $100,000. On the other hand, in the increased imports of agricultural implements, and of scientific instruments and apparatus, under which are included telephones, the bulk both of the trade and the increase is credited to the United States, American gains in these schedules amounting to about $160,000.

The following comparative table gives the foreign trade of the Philippines by country for fiscal years:

Country.	Imports.		Exports.	
	1905.	1906.	1905.	1906.
United States	$5,761,498	$4,333,893	$15,668,026	$11,579,411
United Kingdom	4,848,393	5,224,020	8,291,038	7,499,627
Germany	1,498,898	1,360,961	129,610	459,426
France	832,308	833,858	1,491,753	2,703,328
Spain	1,931,359	1,787,310	1,434,126	1,803,055
Italy	152,802	197,865	59,316	71,260
China	2,942,307	2,654,214	1,008,252	1,705,980
Hongkong	207,703	304,291	2,359,958	3,658,781
Japan	1,018,437	657,386	548,607	532,245
East Indies	7,976,128	5,369,259	635,617	669,822
Australasia	1,365,662	1,523,668	445,741	462,062
Other countries	2,340,855	1,552 541	280,571	772,137
Total	30,876,350	25,799,266	32,352,615	31,917,134

OCEAN CARRYING TRADE.

The Bureau of Insular Affairs further says:

In the foreign trade of the islands the British flag continues to lead all competitors, handling on the basis of value about 60 per cent of imports and 75 per cent of exports. The Spanish flag has second rank, in consequence of the regular service furnished by Spanish mail steamship lines. The German flag is third, while American vessels are fourth in rank, carrying about 9 per cent of the total imports and a smaller percentage of exports.

Just to what extent the distribution of the carrying trade of the islands by flag will be affected by the recent abolition of tonnage dues is unknown. The tendency of these port charges has been to make Manila a branch-line station to the grand-junction supremacy of Hongkong in the Orient and to foster communication with the outside world through that port, but with free entry established at Manila for all comers—whether with large tonnage or small cargoes—direct shipments may be expected to increase. With a harbor and port equipment, the finest in the Orient, nearing completion at Manila, this legislation which opens the Philippines freely to the main lines of ocean communication bids fair to be followed by important carrying trade readjustments as well as much improved shipping facilities.

THE TARIFF.

CHANGES IN RATES AND REGULATIONS.

THE DOMINION OF CANADA.

NUMEROUS ALTERATIONS IN THE PENDING BILL.

Consul-General Church Howe, of Montreal, forwards a report on changes that have been made in the Canadian tariff bill pending before Parliament, and which changes went into effect February 13. Further alterations may be made by Parliament, or the measure defeated, but as it is a government measure its passage is regarded as certain. Mr. Howe writes:

The amendments, numbering one hundred and twenty, cover a wide range of subjects, important changes being made in the duties on iron and steel, oil and agricultural products, etc. A resolution is submitted providing for a bounty on the manufacture of cordage in Canada from manila fiber, this bounty to be equal to the amount paid as export duty in the Philippine Islands on manila fiber produced in those islands and used in the manufacture of cordage in Canada. The bounty is to be applied to manila cordage manufactured in Canada after January 1 and only for home consumption. It is not to exceed three-eighths of 1 cent per pound.

With respect to the dumping resolution, there is added to the exemptions the following subsection:

D.—Binder twine, or twine for harvest binders, manufactured from New Zealand hemp, istle or Tampico fiber, sisal grass or sunn, or a mixture of any two or more of them, of single ply and measuring not exceeding 600 feet to the pound.

EXECUTIVE DISCRETION AS TO THE PREFERENTIAL.

Resolution No. 4, which gives the governor in council authority to extend or withdraw the benefit of the British preferential tariff or the intermediate tariff, is amended by adding the following:

The provisions of the foregoing resolutions shall be deemed to have come into operation on November 30, 1906, and to apply to all goods imported or taken out of warehouses on or after that day, and to have also applied to goods previously imported for which no entry for consumption was made before that day except as otherwise provided in the resolutions: *Provided*, That goods which were imported or taken out of warehouse for consumption, and on which duty was paid between November 30, 1906, and February 12, 1907, in accordance with the rate of duty set forth in the resolutions submitted to the House on November 29, shall not be subject to further payment of duty by reason of any increase by resolution or amendment introduced subsequently.

The effect of this resolution is that goods which have been entered at customs since the tariff was originally introduced shall not be affected by the changes which follow.

An important amendment provides for a 99 per cent drawback of the duty on bituminous coal, when imported to be converted into coke for smelting purposes.

DUTY ON SUGAR.

PREFERENTIAL RATE FOR BRITISH-GROWN.

Consul-General John G. Foster, of Ottawa, reports that an important amendment was made on February 11 to the sugar schedule.

By the amendment, item No. 135 is made to read: "*Provided*, That all raw sugar, including sugar specified in this item, the product of any British colony or possession, shall be entitled to entry under the British preferential tariff when imported direct by ship to a port in Canada from any British country, and not otherwise."

The general tariff on sugars mentioned in this item, not above No. 16 Dutch standard in color, testing over 56 degrees and not more than 75 degrees by the polariscope, is 52 cents per 100 pounds; and for each additional degree over 75 degrees is 1½ cents per 100 pounds. The preference on such sugar amounts to 18 cents per 100 pounds, and this is increased one-half cent per 100 pounds for each additional degree over 75. It is claimed that this preference is sufficient to compel practically the entire importation of all British West India sugar via Canadian ports. The change is causing considerable discussion among sugar refiners and also among people representing certain transportation routes.

EFFECT OF THE CHANGE.

The two largest sugar refineries in Canada are situated at Montreal. It is stated that it has been the custom of these Montreal refineries to import a large amount of raw sugar during the winter months by way of New York, with which port the steamship transportation facilities from the West Indies and the railway facilities to Montreal are such as to make it possible to procure delivery in very much shorter time than by way of Canadian ports. Another fact which is unsatisfactory to the Montreal refiners is that all refined sugar coming from Great Britain into Canada has the benefit of the customs tariff preference whether it enters the Dominion directly from a British port or by way of an American port. The Canadian transportation interests feel that the change will prove beneficial to them, both by increasing the amount of sugar received at the Canadian Atlantic ports and by furnishing more freight for shipment from Halifax and St. John to Montreal during the winter months. It is also expected that general trade between Canada and the West Indies will be stimulated by this measure, especially if a fast steamship service from Canada to the West Indies should be inaugurated.

IMPORTS FROM BRITISH POSSESSIONS.

The total amount of sugar of the grades indicated by this amendment imported into Canada during the year ended June 30, 1906, was 390,846,220 pounds, valued at $8,121,935. Of this total, 344,366,430 pounds received the tariff preference and came from the following countries:

Countries.	Pounds.	Value.
British Africa	5,591,845	$142,867
British Guiana	105,242,994	2,476,688
British East Indies	430,253	7,874
British West Indies	218,345,718	4,587,417
Fiji Islands	14,755,620	269,080

EFFECT ON BRITISH IMPORTS.

Consul General Howe in the following report explains how direct shipments from British countries will be affected:

Item 135, amending the rate of duty on raw sugar so that the benefit of the preferential tariff shall apply only to that raw sugar which is imported direct by ship to a port in Canada from any British country, is of especial importance to the sugar refining industry in Montreal. The two Montreal refineries, which are the largest in Canada, import every year from the West Indies a large tonnage of raw sugar, which they have been in the habit of bringing to this city by way of New York during the winter season, and on which they have hitherto received a preference. Under the new tariff schedule, in order to receive the advantage of the preference, the raw sugar will have to come into Canada via Halifax or St. John, New Brunswick. Local refiners state that New York is the most convenient port, not only on account of the large number of vessels running between the West Indies and New York and the facilities for handling the freight of that city there, but also the railroad communication between Montreal and New York is not limited to one road, as it is between Halifax and Montreal, which eliminates the risk of delays. It is possible, so it is stated, to receive sugar in Montreal from the West Indies in two weeks, while sugar that has already been ordered shipped via Halifax has been six weeks on the road.

On the other hand, the manager of one of the Canadian steamship companies claims that this provision will not only help to build up the eastern Canadian ports and benefit the railroads, but also establish regular steamship lines between Canada and the West Indies, thereby recovering the trade of the West Indies, which for the last quarter of a century has gradually been diverted to United States ports to the great detriment of Canadian trade. The same speaker is also quoted as saying:

Canada's imports of sugar from British Guiana, which is the largest sugar exporter of all the West Indies, amounted in 1901 to $96,000, whereas in 1905 we purchased no less than $2,500,000 worth of sugar from Guiana. The total imports of raw sugar into Canada during the fiscal year ending June, 1906, amounted to no less than 210,000 net tons, of which quantity Montreal used about 150,000 tons. When the new tariff comes into force the effect will be that sugar which was formerly bought through New York agents will very probably be thrown into the hands of Canadian representatives, and the ports of Canada will be greatly benefited. During October and November the sugar will be brought to Montreal, and during the winter season to Halifax or St. John.

SOME OF THE AMENDMENTS.

ITEMS THAT AFFECT UNITED STATES TRADE.

The following changes in the rates of the new Canadian tariff submitted on November 29, 1906, came into force February 13, 1907. These include only the changes which are of interest to American exporters. The new tariff is now in effect pending action by Parliament. (See Daily Consular and Trade Reports of January 2, 1907.)

The British preferential rate on preparations of cocoa or chocolate, not otherwise provided for, is reduced from 25 to 22½ per cent ad valorem, the general rate remaining 35 per cent ad valorem.

The British preferential and general rates on rice flour, sago flour, and tapioca flour are changed, respectively, from 1 and 1½ cents per pound to three-fourths and 1 cent per pound.

The British preferential and general rates on potatoes are changed, respectively, from 10 and 15 cents per bushel to 12½ and 20 cents per bushel.

The British preferential and general rates on fresh tomatoes are changed, respectively, from 50 and 75 cents per 100 pounds to 20 and 30 per cent ad valorem.

The British preferential and general rates on dried dates and figs are changed, respectively, from 50 and 80 cents per 100 pounds to 40 and 62½ cents per 100 pounds.

The general rate on plums is changed from 20 to 30 cents per bushel.

The British preferential and general rates on glucose or grape sugar, glucose sirup and corn sirup, or any sirups containing an admixture thereof, are changed from 35 and 50 cents per 100 pounds to 40 and 62½ cents per 100 pounds.

The British preferential and general rate on malt and malt flour containing not less than 50 per cent of malt is changed from 40 to 45 cents per 100 pounds.

The duty on malt flour containing less than 50 per cent in weight of malt is changed in all the three tariffs (British preferential, intermediate and general) from 40 cents per 100 pounds to 40 per cent ad valorem.

The duty on malt extract is changed in all the three tariffs from 4 cents per pound to 40 per cent ad valorem.

The duty on spirits of turpentine, 5 per cent ad valorem in all the three tariffs, is removed entirely.

The general rate on crude petroleum, gas oils, other than naphtha, benzine, and gasoline, lighter than 0.8235 but not less than 0.775 specific gravity, at 60° temperature, is changed from 2½ to 1½ cents per gallon.

The British preferential and general rates on fire bricks of a class not made in Canada are changed, respectively, from 5 and 10 per cent ad valorem to free and 5 per cent ad valorem.

The British preferential and general rates on roofing slate are changed, respectively, from 15 and 25 per cent ad valorem to 50 and 75 cents per 100 square feet.

The British preferential and general rates on incandescent lamp bulbs for use in the manufacture of incandescent lamps and mantle stocking for gaslight are fixed at 5 and 10 per cent ad valorem, respectively.

The British preferential rate on wrought iron and steel scrap is changed from 70 to 50 cents per ton.

The British preferential and general rates on iron and steel billets, weighing not less than 60 pounds per lineal yard, ingots, cogged ingots, blooms, slabs, puddled bars, and loops, or other forms not otherwise provided for, less finished than iron or steel bars, but more advanced than pig iron, except castings, are changed, respectively, from $1.75 and $2.75 per ton to $1.50 and $2.50 per ton.

The general rate on coil chain, coil-chain links, and chain shackles, of iron or steel, five-sixteenths of an inch in diameter and over, is changed from 5 to 10 per cent ad valorem.

The duty on malleable sprocket or link-belting chain is removed entirely.

The British preferential and general rates on veneers of oak, rosewood, mahogany, and walnut, not over three thirty-seconds of an inch in thickness, is fixed at 5 and 7½ per cent ad valorem, respectively.

The British preferential duty on women's and children's dress goods included in tariff number 563 is changed from 17½ to 15 per cent ad valorem.

The British preferential rate on socks and stockings of all kinds is changed from 22½ to 25 per cent ad valorem.

The British preferential and general rates on glove leathers imported by glove manufacturers are changed from 7½ and 12½ per cent ad valorem, respectively, to 5 and 10 per cent ad valorem.

The British preferential and general rates on leather belting are changed, respectively, from 12½ and 20 per cent ad valorem to 15 and 22½ per cent ad valorem.

The British preferential and general rates on boots, shoes, slippers, and insoles, of any material not otherwise provided for, are changed, respectively, from 17½ and 25 per cent ad valorem to 20 and 30 per cent ad valorem.

The duty of 5 per cent ad valorem on unset diamonds is removed.

BRAZIL.

PREFERENTIAL FOR UNITED STATES—SOME FEATURES OF THE LAW.

Consul-General George E. Anderson, writing from Rio de Janeiro, furnishes an outline of the tariff law enacted at the recent session of the Brazilian Congress, which includes explanations of how certain products of the United States will be affected. He says:

The budget law, involving tariff changes in the Republic of Brazil, which was passed by the Brazilian Congress and given effect under date of December 30, 1906, is important to the United States chiefly in the fact that it continues in effect until a new law is passed all the preferential concessions in favor of certain products of the United States which were authorized in the budget act of a year ago and given effect by presidential decree of June 30, 1906. By the provisions of this year's budget act there is to be no break in the course of these preferentials. Under the provisions of the act of December 30, 1905, 20 per cent preferential reduction is made in the customs duty charged upon the following products from the United States:

Wheat flour; condensed milk; manufactures of rubber under article 1033 of the tariff act, including rubber and celluloid, gutta-percha, basins, funnels, capsules and bottles, walking sticks, canes, whips, etc., pouches, dolls, toys of all kinds, buttons, boots, engine packing, combs, rulers, penholders, fans, belts, braces, garters, cords, tapes, dentists' rubber, sticks, tubes and branches for flowers, rubber sheeting, tubes, threads, sheets, and mats—all of rubber; inks under article 173 of the tariff, except writing inks, but including marking inks, designers' ink, drawing ink and other liquid inks and printers' inks in tubes or cylinders; paints and varnishes; typewriters; ice boxes; pianos, scales; windmills; and watches and clocks.

SOME IMPORTANT CHANGES.

These preferentials in favor of American products over all others are continued, and by the terms of the law just passed the item of typewriters is defined to include linotypes and cash registers, thus bringing these two notable American products within the scope of the 20 per cent preferentials.

The only feature of the law unfavorable to American interests seems to be in the increase in the duty on grape juice, as a result of which the duty now charged exceeds considerably 100 per cent ad valorem. American grape juice has had, and may still be able to maintain, the chief hold upon the Brazilian market in such goods. The increase in the duty charged is made for the benefit of the small grape juice preserving factory in São Paulo.

The duty on refrigerated mutton is increased to 200 reis ($0.0846) per kilogram, or about 3½ cents per pound. The duty on imported live stock is increased to Rs. 60$000 per head (about $25), except on those classes for breeding, and on colts, calves, etc., now admitted free.

There are few other changes from the tariff as it has been in force for some time made by the law. The proportion of the duties to be paid in gold under the new act is the same as that in the old act, except that the change from 50 to 35 per cent payable in gold on certain articles is to be made when the value of the paper milreis falls below 14 pence for thirty days in succession, instead of 15 pence as in the law of 1905. This change is in line with the determination of the present Government of the Republic to prevent exchange going above 15 pence through its "Caixa de Conversão."

The new law provides that motor cars and motor boats used for industrial purposes shall be admitted at 5 per cent ad valorem. The tax of 2 per cent in gold heretofore charged at Rio de Janeiro and Rio Grande do Sul for port works is extended to all ports and frontiers of the Republic, but the practical effect of this provision is in the line of no change, for the tax has been heretofore levied in most ports.

TRUSTS AND FREIGHT RATES.

One of the most interesting features of the act is a provision which allows free admission, for such period as may be judged necessary, of all products which may come into competition with goods manufactured in Brazil by "trusts," the act employing the English word therefor. The new Government pledges itself in the tariff act to revise the railroad freight rates and effect a reduction of 30 per cent at least, where possible, on the lines owned by the Government, and to effect, by agreements or otherwise, similar reduction in the rates charged by private companies. Inasmuch as in many places the freight on coffee from the plantation to the seaboard alone amounts to from 12 to 18 per cent of its value, the necessity of this reduction is apparent.

ENCOURAGING SILK GROWING.

The general scope of the tariff is modified in many cases to promote national industries, and it is worth while noticing particularly that a strong effort is being made to encourage the development of silk growing in Brazil. Exemption from all duties is provided for the eggs of silkworms, and by a further special provision all machinery, instruments, and apparatus required for silk factories and sericulture are to

be admitted free of duty. The experiment of Brazil in silk culture merits the attention of the silk interests of the world. The climate is in general favorable to the growth and care of the silkworm, and apparently there is no reason why an abundance of proper food should not be had for the little spinner. Some parts of the country unquestionably may be considered among the most favorable locations in the world for silk growing. But the great element of silk culture is that of labor, and labor in Brazil is scarce, high-priced, and not always efficient.

Several years ago a notable effort was made to introduce the culture of the silkworm in several of the southern States of Brazil, but the experiment failed on the whole at that time for lack of labor. It may be well to consider, however, that one of the chief elements in the emigration from Europe to these southern States at the present time is Italian, and it is altogether possible, if not even probable, that silk growers trained in Italy may transplant their knowledge and industry to Brazilian soil. While labor is the chief element of silk production, it can be and generally is the labor of women and children, and it is altogether probable that the women and children of the peasant class in southern Brazil will take to the work if encouragement is offered them and steady markets for their products had.

AGRICULTURAL AND INDUSTRIAL MACHINERY.

In line with its policy of protecting and aiding new industries, the Government in the new law especially aids agriculture. Agricultural machinery, machinery for factories of a sort to encourage agriculture (like creameries), and sugar-making machinery are admitted upon the payment of 5 per cent ad valorem in lieu of all charges.[a] Instruments and machinery for the more modern culture of coffee, cacao, tobacco, cotton, and almost all agricultural products, are admitted free. Locomotives and most industrial machinery are held in the 5 per cent class.

Free admission is given to all motors, carburetters, lamps, and other utensils for the use of alcohol for power and other industrial purposes, including light.

Free entry is given to goods for the several enterprises for the improvement of port works, for goods used in aquatic and most athletic sports, for drugs and utensils required for the use of the "League Against Tuberculosis," and for a number of public works in several parts of the Republic. The free list, however, is very limited in scope.

The adulteration of coffee, practiced somewhat in Brazil, although it is the greatest coffee-producing country of the world, is put under a ban to the extent of a fine of Rs. 3,000,000, or almost $1,000 gold, for failure to mark coffee, which includes artificial coffee, as being what it is.

AMERICAN FLOUR.

As heretofore noted, however, the chief feature of the law for the United States is its continuance of the 20 per cent preferential reduction on American products as herein listed. This reduction was not proclaimed until July, and was limited to December 31, 1906, thus allowing six months' sale under the concession. It takes time to start

[a] In order to benefit by this reduced rate of duty, the various agricultural machines must be imported by agricultural syndicates, direct by agriculturists, or managers of agricultural concerns.

business under such privileges, and in view of the fact that it takes two months' at least to transmit a letter from Brazil to the United States and count upon receiving an answer, it is easy to appreciate the fact that almost nothing could be accomplished in the first three months under the law. Yet the figures of imports of flour into Brazil for the first nine months of the current year (1906) as compared with the same period in other years are as follows:

Year.	Argentina.	United States.	Austria-Hungary.	All other countries.	Total imports.	Value.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Reis.*
1906	88,803	15,449	4,489	632	104,374	18,097,182
1905	76,908	13,513	4,462	4,149	98,334	17,758,835
1904	64,718	24,737	7,776	4,522	101,752	24,005,051
1903	51,210	31,088	5,813	1,949	90,061	19,010,864
1902	25,968	35,024	5,754	9,930	76,675	17,736,014

In the foregoing values it is to be remembered that the rate of exchange varies in the several years, and that, reasoning from the paper-money values is unreliable. In the matter of amounts, however, it will be noted that 1906 showed an increase over the previous year of a little over 6 per cent for total imports. The increase of Austria-Hungary was about six-tenths per cent, that of Argentina about 9 per cent, while that of the United States was 14.3 per cent. In other words, Argentina has a little more than held its own in the general increase, Austria-Hungary has fallen back of the general increase, while the United States has had a comparative increase of twice that of imports in general. This increase, however, on the face of the figures, has been at the expense of other countries rather than of Argentina. This nine months' record includes only the first three months of the operation of the preferential in favor of American flour. The fact that an increase is noted in 1906 as compared with steady and rapid decreases in other years, indicates that the concession has been worth something. The full operation of the preferential ought to have been felt during the last quarter of the year, for which figures are not yet to be had.

EFFECT ON RECENT SALES.

While flour may reasonably be taken as typical of the value of tariff concessions for the time being at least, it is doubtful if all the concessions granted have been used in a comparatively successful manner. There does not appear to have been any notable increase in the sale of typewriters, windmills, or refrigerators. There seems to have been some benefit felt in the trade in paints, inks, and other goods of the class of "tintas" on which the preferential has been allowed, but the chief benefit, aside from flour, seems to have been felt in the watch trade, where something of a campaign was made. There has also been some increase in the sale of condensed milk of what is known as the "independent" brands. In other lines Brazilian dealers have not yet had opportunity to test the benefit of American purchases, and as a rule American manufacturers have been slow to take advantage of the opportunity offered them.

The most unfavorable element in the matter of the preferential concession has been in the fact that it was given at the outset for so short a time. That the concessions have been continued under the new act not only gives just that much more time to work in, but it stimulates

a feeling of permanence which begets confidence and leads to orders. How long the concession will continue is uncertain. The operation of the law under which it is given is simply extended until a new law is enacted. The general understanding in commercial and political circles in Brazil is that the Congress which meets next May will at once proceed to revise the Brazilian tariff, and it is promised that a new law will be in force by August.

SERVIA.

NEW TREATIES WITH TURKEY, FRANCE, AND GREAT BRITAIN.

Consul M. K. Moorhead reports from Belgrade that the Servian Government has published the text of a new commercial treaty with Turkey, under which the duty is greatly reduced on fresh fruits, dried figs, dates, olives, and nuts. The consul also reports that a new commercial treaty with France has been signed, but that the text is not yet available. It is stated, however, by the Belgrade press that this treaty provides for lower duties on wine, clothing, shoes, and silk goods. The consul continues:

The British minister in Belgrade is engaged on the text of a commercial treaty with Servia. It is probable that this treaty will provide for a reduction on the part of Servia of the duty on cotton and woolen goods, which make up the greater part of England's exports to Servia, and for the withdrawal on the part of Great Britain of her duty on prunes. In 1905 England exported to Servia goods valued at $1,062,769, as follows: Cotton goods, $720,000, of which over two-thirds consisted of cotton thread; woolens, $100,000; iron and steel, mostly machinery, $86,000; rice, $40,000, and rosin, $23,000. Servia exported to England only $500 worth of goods.

REDUCTIONS IN TREATY WITH TURKEY.

The following are the most important reductions effected by the treaty with Turkey, to which reference is made by Consul Moorhead, the rates being given in dinars (dinar=$0.193) per 100 kilos (220.46 pounds). These reductions apply also to imports from the United States:

Table grapes, from 25 and 20 (according to receptacle) to 6.
Grapes for wine, from 10 and 12 to 4.
Pistachio nuts, fresh or dried, from 100 to 20.
Hazelnuts, from 25 and 35 to 15.
Lemons, oranges, and bitter oranges, fresh, from 15 to 12.
Peel of lemons, oranges, and bitter oranges, fresh, dried, cut, or in brine, from 25 to 12.
Pomegranates and cedrats, from 45 to 15.
Almonds, ripe, shelled or not, from 50 to 30.
Almonds, green, in the shell, from 15 to 10.
Dates, dried, in boxes, from 40 to 20.
Dates, in other receptacles, from 30 to 10.
Figs, dried, in boxes, from 40 to 30.
Figs, in other receptacles, from 30 to 10.
Olives, salted or in brine, from 25 to 10.
Raisins, Tireh, from 40 to 3.
Raisins, Rasaki and Sultanas, from 40 to 10.

FRANCE.

DUTY-FREE ADMISSION OF CORUNDUM.

The French "Journal Officiel" contains the text of a law exempting corundum in granules used in the manufacture of grindstones from customs duty on importation into France.

PORTUGAL.

IMPORTATION OF WHEAT TEMPORARILY AUTHORIZED.

The Portugese "Diario do Governo" contains a decree authorizing the importation of 16,000,000 kilograms (kilogram=2¼ pounds) of wheat for the manufacture of bread, alimentary pastes, cakes, and biscuits, from January 15 to July 31, 1907. The imported wheat is to be allotted to the various firms or individuals manufacturing such products, according to the table in force. The duty on wheat imported under the terms of this decree is fixed at 26.5 reis (about 2.86 cents) per kilogram.

ARGENTINA.

CERTIFICATES REQUIRED FOR BRITISH HAMS.

A Buenos Aires special to the London Times says that, in consequence of the inferior quality of some of the hams which come from England, the Argentine ministry of agriculture has decided not to permit their introduction after April 15 unless accompanied by a certificate of good quality issued by the British sanitary authorities and indorsed by the Argentine consulates in England.

CUBA.

REFUND OF DUTIES ON DAMAGED GOODS.

The Cuban Gaceta Oficial contains the text of a Government decree stating that in view of the damage or destruction which has occurred, and may in future occur, to imported merchandise while in control of the Cuban customs owing to cyclonic storms, fire, or other accidental causes, the secretary of the treasury is authorized, on being satisfied as to the actual injury or destruction by such cause of merchandise in the custody of the customs, in bond or transportation under bond, or within any port of entry, to abate or refund, as the case may be, the import duties payable. The decree is made to cover all goods shipped in since October 16, 1906.

SOUTH AFRICA.

MARKING OF NET WEIGHT ON JARS.

With reference to the order of the South African Customs Union, that unless the net weight of the contents is embossed on all tins containing milk, jams, meat, etc., import duty will be charged on the reputed weight, it is now announced from Cape Town that the net weight must also be blown into glass jars, etc., where necessary.

PACKING.

PROPER METHODS.

HANDLING OF MACHINERY AND PARTS.

METHODS THAT SHOULD BE FOLLOWED—NOTES OF A FRENCH EXPERT.

Mr. Paul Roux, a member of the American Chamber of Commerce of Paris, with a view to facilitate commercial transactions between the United States and France, prepared the following paper on packing machinery for export, in which will be found information that will be especially valuable to exporters of every description of merchandise requiring careful handling:

This paper will give little new information to those familiar with the importation of machinery, nor to American manufacturers who, through their own experience and that of their agents, are conversant with what a machine tool goes through, from its completion and test in the home factory, until finally running in some French establishment. It may perhaps be of value to those who are seeking a foreign market, and who have yet to learn the requirements of export trade, and for this reason is submitted to the American Chamber of Commerce of Paris, whose principal object is to facilitate commercial transactions between the United States and France.

An American machine has much to pass through between the producing factory and its final arrival at the works of the purchaser—cartage, transportation by rail and by sea, transshipment, loading and unloading, custom-house examination, and perhaps storage for considerable periods in French warehouses.

Packing comprises the series of operations which have for object the preservation of the machine in good condition up to the time of final delivery. The care with which these operations are carried out and combined may not only largely affect their own cost, but also the expenses of transportation, custom dues, and storage; and these expenses, in the case of machinery exported from the United States to France, may amount to a considerable percentage of the selling price.

PREPARATION OF MACHINES.

All machine tools after having been completely assembled, inspected, and tested in practical running should be more or less completely dismounted before packing. It is impossible to lay down fixed rules in this regard, as the extent to which a tool should be dismounted varies with each machine, or rather with each class of machinery. The manufacturer must take into consideration the resistance of the tool and its various parts to rough handling in transportation, and decide upon what extent it should be dismounted to insure safety. It must be remembered that while the packing case will protect a machine

against blows which it may receive when in a normal position it offers little protection against side or abnormal thrusts resulting from an overhanging position. Great care must therefore be taken to see that no part of the machine is in contact with the sides of the case that is not fully able to withstand the rough handling to which the case can be subjected. The feet of a lathe bed, the base of a shaper, or of a milling machine, may be readily broken by the packing case falling, even lightly, on one of its corners, and without the latter showing any external evidence of the fall.

A most important consideration to be taken into account when dismounting a machine is its volume or cubage when packed for shipment. Marine freights are generally reckoned at so much per ton weight, or per 40 cubic feet, at the option of the ship. The exporter has, therefore, every interest to see that the weight, which can not of course be varied, does not occupy a space greater than 40 cubic feet per ton. Nearly all machines, when not dismounted, make up into packages greatly exceeding 40 cubic feet per ton, and even under the best conditions can rarely be packed in cases equivalent in weight and volume. It may therefore be laid down as a general rule that every effort should be made to reduce the volume as much as possible by dismounting all projecting parts which increase the over-all dimensions of the packages. On the other hand, the difficulty of assembling parts requiring accurate adjustment must be taken into account, and the exporter must use his best judgment in deciding at what point the difficulties of setting up the machine will outweigh the economy realized by reducing the volume of the package.

MAXIMUM WEIGHT AND CHARGES.

This question of reducing the cubage is worthy of the closest attention of American manufacturers, as the freight from the United States to French ports is extremely high by the direct lines, while the extra duties charged upon goods arriving indirectly more than counterbalance any savings in transportation charges. The cost of transportation is, therefore, an important factor in the cost of a machine when delivered in France, and the economy realized by paying close attention to the volume of packages may form an appreciable portion of the profits.

The maximum weight of each package must also be carefully considered; freight charges, computed, as has already been shown according to weight or volume, as may be more profitable to the carriers, are increased very considerably when the weight of individual packages exceeds a certain limit. For instance, the rate for packages exceeding 4½ tons in weight is double that for packages weighing less than 2 tons. This increase varies according to the steamship line, but is imposed by all, and must therefore always be taken into account.

In addition to its effect on the actual freight charges, the total weight per package when exceeding a maximum of about 2 tons involves extra charges for loading and unloading. These charges vary according to the equipment of the ports of departure and arrival, and are often very considerable, as when it is necessary to move the vessel under a dock crane, when one is available, or to get up steam on a floating crane to handle the heavy weights.

To sum up, it will generally be advantageous to dismount a machine weighing over 2 tons in order to pack it in several packages each

weighing less than this maximum. Care must be taken, however, that the total tonnage or cubage of the several packages does not exceed that of a single case, and that the difficulties of assembling the machine at destination do not more than counterbalance the economy realized on transportation charges. It is also profitable to dismount a machine weighing either more or less than 2 tons, when this secures a considerable reduction in volume, and when, as is generally the case with machine tools, the cubage exceeds the limit of 40 cubic feet per ton.

DISMOUNTING FRAGILE PROJECTIONS.

It is generally necessary to dismount fragile projecting parts, even when this will have no influence on the volume or weight of the packages. While it is true that these parts will be properly protected by the packing case during transportation, still they run the risk of being bent or broken during the operations of unpacking and setting up the machine. It is therefore preferable to remove and pack them in one or more separate boxes secured in the principal case. All delicate or fragile parts which can not be removed should be carefully protected against rough handling during unpacking. All screw threads should be carefully covered with wood or rags, all tapped holes, oil holes, and in general all openings through which dirt can reach the interior of the machine should be carefully closed with wooden plugs.

Manufacturers are especially urged to tag all pieces which may have been removed with labels fully explaining their position on the machine. This precaution may appear exaggerated and useless if it is considered that the machines will only be assembled by mechanics understanding their construction, but certain American machines are novelties to many factories, and besides, before arriving at the works of the purchaser, the machine has to pass through the custom-house, and sometimes has to be exhibited in a sales room. Under these conditions it is necessary that people unfamiliar with the type of machine should know exactly the position and function of each of the detached parts.

PROTECTION OF FINISHED PARTS.

When a machine tool has been properly dismounted and divided for packing the very important operations of protecting the finished parts against rust must be carried out. Lack of care and attention in this operation may have very serious consequences. It is not necessary to point out what serious effects rust may produce on the finished parts of a machine; it should be remembered that after having passed three or four weeks en route, often inadequately protected from the rain and always subjected to the effects of dampness, a machine may remain during long months in warehouses before being unpacked, and it is easily seen in what condition a machine may be found if the finished surfaces have not been protected against rust by a thoroughly efficient coating.

There are two things to be considered in this question of protection—the nature of the protective coating and the method of applying it. Without stating what the composition of the coating should be, it is urged that this should be sufficiently fluid at the time of application to permit it to reach all parts of the surfaces to be covered; that it should be entirely free from all trace of acid in order that it may not attack the metal. It should dry very rapidly, in order that no surface should be exposed accidentally through chafing en route or

careless handling in the custom-house. It should be readily dissolved with oil, petroleum, or turpentine when the machine is ready to be set up at its final destination.

DAMAGE FROM RUST.

The coating should of course be applied carefully to all polished surfaces which can be reached by the atmosphere, and care should be taken that the coating is intact after the machine has been packed—that is to say, when the packing case has been constructed around the machine. It very often happens that the packers carefully coat all polished parts of a machine, but that more or less of the coating is removed during the handling necessary for placing the machine in its packing case, or by contact with the interior braces. The effects of this negligence are generally very serious, because the parts thus exposed are promptly attacked by rust, and the machine can not be put in perfect condition, even if this be possible, except by long and costly work.

Polished surfaces which are in contact with each other should not be coated; they will be sufficiently protected by the lubricating oil applied for running the machine. Likewise, oil holes should be free from the coating composition, as it is most difficult to completely remove it later on.

Finally, it is recommended that this coating be not applied to any finished parts, which, by their position in the machine, are completely protected from all exterior contact, and which are so situated that the removal of the protecting coat would be difficult. For these parts the employment of vaseline or solidified oil is suggested, as this can be readily removed, and even if not removed can not affect the working of the machine. The only precaution to be taken is that the vaseline and oil should be entirely free from acid. As an example, inclosed gearing, such as in the head stock of a lathe, can be protected in this manner against rust. Vaseline or solidified oil may also be employed for protecting such small detached pieces as may be inclosed in a separate box.

CONSTRUCTION OF CASES.

The packing case must fulfill two requirements—it must effectually protect the machine against all shocks and injury during transportation and must facilitate the handling of the machine; that is to say, the packing case is at the same time a covering and a vehicle.

In order to fulfill this double requirement the case should be specially constructed, and without fixing general rules, as the details of construction will vary considerably with the forms of different types of machines, the essential requirements will be given for packing cases containing a machine which is of a weight too great for moving by hand.

The bottom is the most important part of the case, considered as a vehicle. If this is well designed it will not only facilitate handling during transportation from the United States to France, and contribute greatly to removing risk of injury, but it is the only part of the case which can be utilized in France if, after remaining in showrooms, it is to be shipped by rail to its final destination. The bottom should therefore be sufficiently strong to carry the total weight of the machine without the assistance of any other part of the case when balanced on a roller. It should be constructed with two longitudinal battens in order that

the case may be moved on rollers when cranes are not available, and these battens should be beveled at the ends to facilitate their employment. Transverse planking, spiked to the battens, forms the bottom of the case. On the bottom, constructed as indicated, two frames should be built around the machine, dividing the length of the case in three parts, in such manner as to support the pressure of ropes or chains when handling with cranes or other hoisting apparatus. These frames will, at the same time, act as supports for the interior braces, and as lateral supports in case the package is laid on its side, which often happens in spite of instructions. Around these principal elements are built the sides, ends, and top of the case, which are designed simply for protecting the machine generally. In constructing the packing case the remarks already made regarding its volume must be borne in mind. This volume is computed from the over-all dimensions, and often a bolthead or a batten badly placed will largely increase the cubage.

CUSTOMS EXAMINATION.

In designing the packing case it is very necessary to make provision for the examination of the machine in the custom-house, and even for removing it completely. It is absolutely necessary in all events to arrange an opening in one of the sides or in the cover through which the nature of the machine may readily be seen. This opening should be large enough to permit the examination of all parts of the interior of the case and to permit the passage of a lantern if required. It should be closed by a cover secured with screws.

To allow for removing the machine completely from the packing case, in order to determine the net weight of the machine for the custom-house, it should be arranged so that the packing and the unpacking may be readily and rapidly accomplished without it being necessary to injure the panels. For this it is necessary that the top and one of the sides be secured with screws instead of nails, and that the position of the interior battens and braces be indicated externally in order that the screws and nails fixing them may be readily found.

It is especially recommended that the interior of packing cases be not lined with paper. Such a lining prevents the circulation of air, and if the machine be packed in a damp atmosphere the humidity, which under other circumstances would have evaporated, will attack the metallic parts however slightly exposed. Special attention is called to this point, as practical experience has demonstrated that effects have resulted from lining cases quite unforeseen by the exporter.

LISTS AND DRAWINGS.

It is very necessary that the machine should be accompanied by a detailed list of the detached pieces contained in the packing case, which, on unpacking, will show whether any part has been lost during transportation or during the custom-house examination. It is most indispensable that this list should be accompanied by a drawing or cut, showing clearly the machine when assembled and ready for work. The cut should also show all accessories which are indispensable to the machine—for example, countershafts, keys and wrenches, change gears, etc. This cut, in lieu of which a drawing should be supplied, will permit the custom-house inspectors to convince themselves that the detached pieces actually form part of the machine; otherwise these pieces may have to pay duties at a higher rate than the machine itself.

If the machine has been taken apart and made up into several packages, a cut or drawing should be placed in each case, as in general all of the packages are not opened in the custom-houses.

These papers, lists, cuts, and drawings should be carefully enveloped in waterproof paper and tacked inside the case near the small opening already mentioned in order that they may be readily accessible. When the dimensions are such that the papers can be attached to the cover of the opening this should be done.

EXTERIOR MARKS.

The packing finished, it only remains to properly mark the cases for identification. All manufacturers know that a case should be marked legibly with identifying marks and numbers, the gross and net weight, the volume, and the name of the port of discharge, the latter in legible lettering at least 2 inches in height. It is only necessary to call their attention to the necessity of marking the absolutely exact net weight, as even a very small difference between the weight stated and the true weight may cause difficulties in the custom-house, and perhaps the imposition of fines. The volume is determined by taking the three dimensions over all. In addition to these marks, indispensable for the transportation of the package, and which should when possible be placed on the sides of the case, it is recommended that on each end of the package a short designation of the contents be added. These last-named inscriptions are absolutely necessary when the package is to be stored in a warehouse, as they permit of the immediate identification of a case containing a given machine. The inscriptions should not only indicate the type of machine, but should also give its size or number.

Finally, exporters are urged to paint a black circle around the heads of all nails and screws which should be removed in order to unpack the machine with the least work and without injuring the panels and bracings.

If the bottom of the case has been given the special form herein indicated, there is little chance that it will be placed otherwise than upright; it is, however, better to add the usual indications "top," "bottom," etc.

If the foregoing suggestions are carefully followed manufacturers will greatly diminish the risk of injury or deterioration during transport, and will spare the consignee of the machine and the purchaser in France the trouble, delay, and expense which the loss, damage, or breakage of an essential part of the machine will cause him. The importance of properly bracing and securing a machine in its packing case has not been insisted upon, as the methods must vary greatly with each type of machine. The manufacturer should know how to to arrange the bracing that the stresses to which the case may be subjected will be properly distributed and only brought to bear on such parts of the machine as may be capable of resisting them.

ASIA MINOR.

INSPECTION OF PACKAGES IN THE TURKISH CUSTOM-HOUSES.

Consul Ernest L. Harris, of Smyrna, transmits the following translation of an article from the "Revue Commerciale du Levant," which

should be of value to American manufacturers shipping merchandise to Asia Minor and other parts of the East:

Ottoman custom-houses open all cases, boxes, packets, or parcels of every description. In the case of uniform packets, however, containing exactly the same quantity of identical objects, such as sardine cases, barrels of cement, etc., the custom-house officials content themselves, sometimes, with opening only a part. Under all circumstances the contents are sounded as far as possible, especially those cases containing cement, sugar, and similar goods.

The packets are not properly opened in the custom-house, they are simply broken into, and the repacking is done in the most summary manner. No attention whatever is paid to the remarks, notices, or instructions on the boxes, so far as the "side to be opened" is concerned. The custom-house broker, who is present at the operation, can have the opening made on the side indicated on condition that he compensates the workman who acts in conformity with his wishes. But it is invariably certain that the fact of asking to have a case opened on one special side gives arise to suspicions on the part of the custom-house officials, who then cause the case to be emptied to the last object.

When one sees the words "fragile," "top," "bottom," "keep dry," etc., it is certainly amusing to see how the cases are handled. The porters of this country do not in general know how to read. Those attached to the custom-house throw the packages around with a great deal of unnecessary energy and without the least care. They are unable to distinguish the remarks written on the packages for the reason that they do not understand them. Many cases are seen marked "bottom" standing upside down, and others marked "fragile," supporting a lot of heavy boxes. The most exact instructions are those on American Cabot cloth bales, "use no hooks," but each of these inscriptions is underlined by a long tear, due to the enormous hooks of the custom-house workmen.

PACKING FOR THE INTERIOR—DISCHARGING CARGO.

Too much attention can not be paid to the packing of goods intended for the interior. The two railway lines leading out of Smyrna into the back country feed but a small territory in which many foreign articles of merchandise find markets. There are caravan routes leading from Smyrna to many points hundreds of miles away. Nearly every town and village situated on the railway lines is a station at the same time for camel trains and pack donkeys. Merchandise intended for transit through Smyrna and Trebizond to the lake districts of inner Asia Minor or Persia should be packed exceptionally well, inasmuch as it must withstand the jolts of caravan transportation, not to speak of rain and heat.

Some of the quays in Levantine ports enable the steamers to go alongside. In such cases the cargo is discharged by windlass direct onto the quay which considerably diminishes the risks of breakage. When it is impossible to come alongside, as is generally the case at Smyrna, the cargoes are discharged onto lighters and then towed to the quay and unloaded by means of cranes, when their weight renders the employment of these lifting instruments necessary. As a rule little damage is ever done in transferring cargoes from vessels to the custom-house for the reason that the quay companies are usually responsible for breakage. The fault lies wholly with the custom-house porters who not only ruin the packing of merchandise in the custom-house, but also in carrying the cases from the custom-house to their place of destination after examination.

It is impossible to change this for the reason that these workmen have the monopoly of such transportation. The heavy packages are carried by two, four, or eight porters, by means of long poles, the extremities of which rest on the shoulders, and on which the loads are hung. When the transit is long the porters rest two or three times on the way, and in order to do this they let their load fall roughly to the ground. For the reasons indicated, and because the roads are very badly paved, well-equipped vehicles are very rare in the different parts of the Levant. It is, therefore, advisable to avoid the use of large cases and heavy packages as much as possible. There is no maximum weight, but with those weighing more than 30 hundredweight the discharging expenses very greatly increase the cost of transportation. To transport such heavy boxes is difficult enough in the towns, but it is next to if not quite impossible in the interior.

TRANSPORTING GOODS IN THE PROVINCES—ADVICE FOR PACKING.

In the provinces where there are no railways the roads, when such exist, are generally in a deplorable condition. The transport is made by means of carts drawn by oxen or horses or other beasts of burden. The packages which run the least risk of

being broken and which incur the least expense for porterage are those weighing only one "load," i. e., 145 pounds. One man can carry such a package. Above this weight the cost of transportation—obligatory for all packages passing through the custom-house, even though the merchandise be received at the door of the custom-house depot by the receiver—doubles, and from 345 pounds it triples. It is therefore inadvisable for packages coming regularly and in a great number to make cases or bales which, for an extra weight of small importance, pay double porterage. There are no preferred forms or shapes prescribed by the custom-house, and all duties are as a rule paid ad valorem.

Pack well, above all, delicate and valuable objects. Badly packed goods offer an opportunity for theft and this is always a source of trouble. Care should also be taken that excessive packing dues do not harm the sale of merchandise. It is certain that if the packer of a large manufacturing establishment is left free to act as he chooses, with the idea that the consignee or purchaser pays, the costs for packing will be excessive, and competitors who pack for themselves in their own factories, with a trained staff skilled in doing such work economically, will have the advantage in the markets of this part of the world. Heavy and voluminous packages should be avoided as much as possible, as they constitute a great increase of cost and numerous risks of breakage. Merchandise should be packed with the idea that all the inscriptions "Fragile," "Top," "Bottom" are not understood and if so, never respected. They should be put on, nevertheless, as it costs nothing and may be of some little service. Cases should be tightly packed as this renders theft more difficult. When valuable goods are shipped the case should be made so that it could not be opened without leaving marks. It sometimes happens that contents of cases are extracted with such skill that it remains undiscovered until opened at the point of destination. The difference in weight is often made good by introducing stones. That parcels and packets can be opened and closed with such adroitness, without leaving the least trace, proves that perfect tools have been applied by ingenious and skillful hands. It is advisable, therefore, to construct a case which can not be opened without leaving an irreparable proof of such thefts. If such measures are taken it would be easier to locate the time and place of the theft, and would enable the authorities to get on the track of the culprits.

NECESSARY PRECAUTIONS.

LOOSE PACKING INVITES PILFERING.

Vice-Consul E. C. Baker, of Foochow, China, reports that sufficient stress has not been laid upon the necessity of shipping goods for export trade in such shape as to prevent theft. The vice-consul continues:

Much has been said about the careless manner in which American goods are often packed which causes them to spoil or to become broken before they reach their destination, and the American shippers have not been slow to heed this warning note sounded from many directions. Little has been said about precautions necessary to insure the goods arriving at all. In the case of oriental trade this matter is specially important for several reasons. The careless way in which goods are handled on reaching the Orient is responsible for many of the losses which occur.

The handlers are much given to stealing on a small scale, because of their great skill in effecting a theft, and also because of their willingness to incur a great risk for the chance of a small gain. Whatever may be the cause, it is unfortunately true that much difficultly has lately arisen among the importers in China through the disappearance of part of their consignments. The losses do not come so much through boxes or chests being carried off entire as through their contents being abstracted, the receptacle being left, as a rule, in apparently the same shape as when leaving the exporter's warehouse. This is a common trick, and makes a discovery at the time of the theft most

difficult and the task of tracing the goods even more so, as the shortage is seldom noticed until the lot arrives at its destination.

SKILLFUL ABSTRACTIONS.

Ingenious means are often contrived to prevent the loss being noticed. One of the leading importers of provisions remarked recently that he had found empty cans in his preserved fruit boxes which had been substituted for the full ones taken out, so that the contents would not rattle or shift and so disclose the loss. He stated also that shavings and excelsior had been stuffed into boxes made empty, or partially so, through the removal of crackers or biscuits. Not long ago a heavy loss was sustained by one of the American missionary schools at this place through the loss of linen drawn work, the value of which exceeded $1,500 gold. The skillful way in which this theft was accomplished made all efforts to recover the goods or apprehend the thieves futile. The drawn work was packed in a box which was strongly secured by iron strapping and was also carefully nailed. The box was carried to the customs and thence to the steamer, and was scarcely out of the sight of some responsible person for a moment.

When the box reached the customs collector at Pittsburg, to which it went in bond from New York, it was found to contain nothing but woven straw and paper, scarcely a thread of the linen remaining. The consignor was immediately notified and the most searching efforts were made to effect a recovery and discover the thief, but all attempts to accomplish either were of no avail. No trace of the goods has ever been found nor any clue discovered which might lead to the detection of the thieves, though the variety of the woven straw with which the box was stuffed suggested Foochow as the place of the theft, as this variety is only to be found here. One of the merchants here who deals in drugs, hospital supplies, and haberdashery has experienced similar losses, the goods as a rule being taken from the boxes whose outside appearance upon delivery gave no evidence of their having been tampered with.

METHODS OF PROTECTION.

Such instances might be multiplied almost indefinitely, but they all go to show that more care must be taken in boxing and packing goods so as to render such theft impossible, or at least increasingly difficult. Numerous suggestions might be offered all of which should depend somewhat upon the character of the goods and the size and shape of the receptacle containing them. A box lined with tin or sheet iron would be suitable for small quantities of valuable articles such as ginseng or medicines. A box covered with some woven material, such as basket work of cane or bamboo would quickly betray a loss through an entrance to the interior casing, signs of which could scarcely be concealed. The wood used for boxes intended for long shipments should be both strong and thick, and the nails should be long and corrugated. But the cheapest and probably the best extra safeguard is a liberal amount of iron strapping tightly nailed and carefully secured.

Most shippers could improve their manner of using this valuable protection in two important respects. In the first place, it is hardly enough to have strips running merely around the ends of the box, as a board or two with one of these strips unfastened could easily be raised with only a very slight displacement at the other end. A strip

should gird the middle of a box, and so prevent the raising of boards from either end. Great care should also be exercised in disposing of the end of the strapping, so as to prevent their being used as a means of lifting the strapping from the box in such a way that it can be renailed in its former position. The practice of sealing the ends with lead has proved effective and can be employed to excellent advantage. Though there may be some added cost in these extra precautions, yet they are in the nature of insurance, and the prevention of any large loss, or even small irregularities, would justify the slight additional expense which such protection would necessitate.

EUROPEAN ADVICE.

RULES FOR SHIPPERS RECOMMENDED BY AN AUSTRIAN SOCIETY.

Consul William H. Bishop, of Palermo, forwards rules to be observed in packing goods for foreign trade, published by an Italian paper, as prescribed by the Commercial Museum of Vienna, Austria. These rules are as follows:

In transportation by sea packing boxes are exposed, owing to frequent transshipment and the methods of stowage employed in the holds of vessels, to violent jars and shocks and to extreme pressure on all of their sides. They must, therefore, be of material of the right strength, and must also be calculated with a view to the weight and character of the merchandise they contain. Warning inscriptions placed on the outside, such as, "This side up with care," "Fragile," and the like, are generally quite useless. In most instances the freight handlers can not attend to these injunctions if they would, and in others they do not even understand them. Packing cases, therefore, should be made of such stiff wood that it will not give way under any pressure. It should be absolutely free from elasticity, for, if not, thieves may take advantage of the opportunity and force the box, without leaving any trace of their work behind. Care should be taken to have no knots in the wood, for knots may yield to pressure and thus constitute another means of facilitating the operations of thieves. If knots can not be entirely avoided, thin plates of zinc should be nailed over them inside the box.

All parts of the box should be made a compact whole by the use of stout internal cleats or otherwise. The perfectly tight securing of the cover to the box is a matter to be especially looked after, and the cover should not project beyond the body of the box.

SECURE FASTENINGS—PROVISION AGAINST ROUGH HANDLING.

If the use of screws to put on the cover be not practicable, then the box should be reenforced with cross bands of hoop iron. However, it is even more effectual to employ nails of a tough quality, driving and clinching them so well into the wood that they can not be drawn out. Another good way of making the box very secure is to fasten on the cover with iron clamps. English and American houses are wont to join iron reenforcing bands where used, by soldering and to stamp their trademark into the solder. The clamps are to be recommended most highly, for when they are present the box can not be opened without the traces of the tampering remaining evident.

Certain goods of exceptional value ought first to be hermetically sealed up in receptacles of zinc, because wood does not always furnish sufficient protection from humidity. The weight of a package of merchandise should not exceed, on the average, from 100 to 150 kilograms (220 to 330 pounds). If greater weight is necessary, the case must be made of exceptional strength to correspond. The contents of the case must be packed in such a way as not to diminish in volume even under heavy shocks and jarring.

Goods in bale should be secured by encircling with stout iron wire. The further protection of a framework of wood is also desirable, against the circumstance that should grip hooks be used in the handling—a practice which, though prohibited by commercial usage, is still prevalent, and especially in the Orient—the merchandise may not suffer from rough treatment.

With regard to materials packed in barrels, much heed must be paid to the chance of decrease in the volume of contents. By reason of the lively movement and

shocks, such goods as flour, cement, nails, small ironware, and the like, undergo a sensible shrinkage, and consequently one end or the other of the barrel being less firmly supported from within offers a weakened resistance. Great pains should be taken to see that the barrel heads are sufficiently strong to meet all contingencies of hard usage. With regard to liquids, there is to be kept in mind the probability of leakage; without proper forethought and precaution a heavy shock may open the joints of a cask to such an extent as to cause loss of the entire contents.

ADVICE TO SHIPPERS.

NEGLIGENCE IN PREPARING BILLS OF LADING.

Consul-General B. H. Ridgely, writing from Barcelona, calls the attention of American exporters to their negligence in the matter of sending bills of lading covering shipments of merchandise from the United States to Spain. The consul-general says: These shipments frequently arrive consigned to order or to consignees unknown to the customs authorities. Hence, the persons for whom intended not having claimed them and being unknown to the authorities, it is impossible for the latter to notify the consignees of the presence of the merchandise. Thus the delivery of the goods is often very much delayed, or they are not claimed, and are sold for charges. Such forced sales have occasionally been prevented by the intervention of this office in ascertaining the names of shippers and advising them of the situation.

In the steamship Montserrat, which arrived at this port from New York on January 22, there were 41 cases of household effects and furniture, two cases of shoe leather, one case of springs, and one case of typewriters and typewriter parts consigned to certain parties, all of which are now unclaimed at the custom-house. It is said that this is due solely to the fact that the consignees have not received the bills of lading and are consequently wholly unaware of the arrival of the merchandise. All shippers of goods to Spanish ports should, as soon as the shipments are effected, send bills of lading by registered mail to the consignees.

EMPTY GRAIN SACKS.

DISPOSITION AND PRICE AT THE PORT OF LIVERPOOL.

In a report from Liverpool Consul J. L. Griffiths sends the following information in regard to the uses to which grain sacks are put after being emptied:

Very large quantities of grain sacks are purchased by local bag dealers and are returned to the United States, to be again filled with wheat, barley, or other cereals. Before being shipped the bags are overhauled and mended by the dealers and put into a fit condition to again receive produce. If bags are bought direct from the millers, the overhauling and repairing would have to be done afterwards. The present market prices of bags in the mended condition, in large lots, are as follows: Californian centals, $2\frac{9}{16}$d. ($0.052), narrow La Platas, $2\frac{1}{32}$d. ($0.051). [Names of the principal bag dealers and millers of Liverpool, furnished by Consul Griffiths, may be obtained at the Bureau of Manufactures.]

TRANSPORTATION.

WORLD RAILWAY LINES.

CROSSING SIBERIA.

RESOURCES OF COUNTRY—COMMERCIAL INTERESTS AND PROSPECTS.

Vice-Consul-General Nelson Fairchild, of Mukden, reports that not withstanding the prevailing idea that political disturbances have seriously interrupted the railway communications throughout Russia, the journey through Siberia and northern Manchuria may be made with only the ordinary difficulties which beset the traveler. As information regarding the trip from London to St. Petersburg and across Siberia is not readily obtainable in the United States, the following information from Mr. Fairchild will be of interest:

Trains for St. Petersburg leave the Victoria station, London, daily at 9 a. m. to connect, via Dover, with the Nord Express at Ostend, which reaches Berlin at 7.40 next morning. The regular St. Petersburg express leaves at 10 o'clock, and after a thirteen hours' trip the Russo-German frontier at Eydtkuhnen-Wirballen is reached. It is here necessary before changing trains, owing to the difference between the Russian and the German gauge, to pass the Russian customs and to submit passports for visé by the police authorities. Baggage is handled by a corps of porters, and the traveler is able to pass the time before the train leaves, at 1 a. m., in one of the excellent restaurants which are to be found at all the larger Russian stations. Those who wish to be certain of a berth in a sleeping car should telegraph ahead. Leaving at 1 a. m., it arrives at St. Petersburg at 6.40 the following evening.

ST. PETERSBURG TO MOSCOW AND IRKUTSK.

The night "train de luxe" leaves St. Petersburg for Moscow at 10.30 p. m., arriving at 10.30 the following morning.

The regular Government trans-Siberian express leaves Moscow twice a week, on Sundays and Thursdays, at 12.10 a. m. (local time), the sleeping-car train leaving on Wednesdays. By taking the latter, however, it is necessary to wait one day at Irkutsk, while the other two trains, with two hours' leeway, connect with the Vladivostok express, and, except for the lavatory accommodations, the ordinary express carriages are quite as comfortable as the more expensive sleeping cars. It is an eight-day trip without change from Moscow to Irkutsk. At the latter station, on account of the change of trains, it is necessary to secure a new berth. It will be found more convenient to have the agent in Moscow secure the ticket by telegraph. It is necessary to watch the baggage, as the platform is crowded and thieves are not uncommon.

IRKUTSK TO HARBIN AND MUKDEN.

From Irkutsk the train passes south of Lake Baikal, running very near the water's edge over a hastily constructed roadbed which requires constant watching. It is proposed to build a second line farther to the south, avoiding the mountains which surround the lake. The run to Harbin is five days without a break, at Karamskaia the line changing from the trans-Baikal to the Chinese Eastern Railroad. At about 11 a. m. (local time) the train reaches Harbin, where those going south must change to the old Port Arthur line, the express going through to Vladivostok, arriving there thirty-six hours later.

The south-bound train leaving Harbin at 10.30 p. m. for Changchun (Kwangchentzu) does not compare with those on the main line, consisting of ordinary post cars. Changchun, the last station on the Russian line, is reached at 10 the next morning.

The Japanese railroad begins 5 miles south of Changchun. The schedule has not yet been completed, but there is at least one train a day each way, consisting of one second, a number of third-class, and box cars. Mukden is about sixteen hours away on the main Port Arthur line.

ACCOMMODATIONS AND FOOD.

The St. Petersburg express leaving Berlin is composed of comfortable first and second class vestibule carriages, with a good dining car attached. From Wirballen to St. Petersburg there is a regular sleeping-car train, while the express between St. Petersburg and Moscow is the best train in Russia. It is made up of sleeping cars of the latest type. The Moscow-Irkutsk Government express consists of first and second class cars only. The first-class compartments are for two or four, while the second-class accommodates four persons. Each compartment is fitted with a small table and electric reading light, and there is a lavatory at either end of the car. From Irkutsk on the trains are built on the same plan, but slightly larger, with three lavatories.

On all the Russian trains (except that between Harbin and Changchun) there is a restaurant car, where the prices are reasonable and the fare, though good, is monotonous. As the stops are long, a change of menu may be found at the station buffets. It is unsafe to drink unboiled water, but Russian and other mineral waters are supplied at low rates. The light Caucasian wines are good and cheaper than French or German clarets or hocks. Russian beer is fairly good, and at the stations peasants offer bottles of milk for sale, while tea or coffee may be had at any hour of the day.

BAGGAGE, LANGUAGE, ETC.

Baggage may be registered through to Harbin or Vladivostok on the payment of a not excessive charge, but only 54 pounds is allowed free on a single ticket. The staterooms, however, are large enough to permit the carriage of pieces the size of a small steamer trunk.

Neither towels, soap, nor toilet paper are furnished on the trains. It is well, also, to buy such postage stamps as may be needed for letters to be posted en route, as they are difficult to obtain at the stations. Blankets are necessary both at Harbin and on the road south.

A knowledge of French or German, preferably the latter, is most useful, as the porters do not, as a rule, speak English. An open letter

to the station masters from the minister of ways and communications will be found valuable, should any difficulty arise, and a passport viseed by the Japanese minister would be useful in transferring from the Russian to the Japanese lines at Changchun.

Coal and coke are the principal fuels, though on parts of the road wood is used. The light rails and the poor quality of the fuel are responsible for the low rate of speed, which rarely exceeds 25 miles an hour.

CONDITION OF ROADS, COMMERCIAL TOWNS, ETC.

The rails throughout are very light, about 60 pounds in weight, and the roadbed is poorly ballasted. Both show the effects of the heavy traffic. From Cheliabinsk on there are single sidings every 5 versts, with many more at each station. The railroad is divided into three parts—the trans-Siberian from Moscow to Cheliabinsk and Irkutsk, the trans-Baikal from this point to Karamskaia, and the Chinese Eastern from Karamskaia to Vladivostok.

Connecting with the trans-Siberian line there are branch railroads from Cheliabinsk to Ekaterinburg and Perm, shortly to be connected with a road from St. Petersburg via Vologda; from Taiga to Tomsk, and from Karamskaia to Stretensk. Cheliabinsk, moreover, within another year will be connected with Irkutsk by a second line to the south, and a new circum-Baikal as well as a Stretensk-Habarovsk line is contemplated. Water routes and connecting railroads, both constructed and projected, supply the main arteries, and only the network of the connecting lines is necessary to complete the opening of the country.

The towns along the line appear to be fairly active, growing places, with their saw and flour mills, distilleries, and factories. The larger ones, such as Cheliabinsk, Petropavlosk, Omsk, Kainsk, Taiga, Ilanskaia, Nijnieoudinsk, Irkutsk, and Tchita, show signs of great commercial activity.

POPULATION AND RESOURCES.

The bulk of the population of Siberia is made up of emigrants and exiles from Russia proper. At present the exiles form only from 8 to 9 per cent of the whole, and this proportion is decreasing, while the number of voluntary emigrants is growing each year. The latter are chiefly farmers, who are given Government land, rent free for a number of years, after which they are obliged to pay a small tax.

The native population consists of nomadic tribes—the Kirghiz, Tartars, Turks, Mongols, Bukhariots, Samoyedes, and Buriats—living in felt tents. They are not agricultural but pastoral races. Their flocks and herds provide food, clothes, and shelter, and they rely on the frequent fairs held at large towns to meet and exchange commodities for their other needs.

The natural resources of the country are great, large mineral deposits being found throughout; gold, which is the most important, forming one of the chief sources of wealth. After it, in the order named, are coal, iron, silver, lead, and salt, as well as quantities of precious stones. These mines are worked by primitive methods, though in the Tomsk district some modern American machinery has been introduced, and the output is at present very considerable and annually increasing. Although the numerous coal and iron deposits have not been extensively exploited, coal is furnished in sufficient

quantity for railroad use, and a certain amount of pig iron is exported. Silver, lead, salt mines, and oil wells, though not as important, are profitable, and contribute to the general wealth of the country. Timber also, if felled under proper restrictions, should be a constant source of revenue both to the Government and to the lumbermen.

INDUSTRIES.

A certain amount of capital is invested in canneries, for the country abounds in rivers and lakes, which are supplied with fish in abundance—salmon, sturgeon, sterlet, and trout.

Farming is the chief industry of Siberia, for the Russians are essentially an agricultural people. Partly, however, owing to the crude implements in use and partly to the community ownership of land, the production has been small in comparison with the fertility of the soil. Agricultural machinery has not been employed to any great extent, notwithstanding the enormous area capable of cultivation; and the peasantry are content to work their farms by hand. Common ownership of land, as in Russian Siberia, interferes with proper fertilization and rotation of crops, for the land is each year divided by their head among the various members of the community according to the size of the families. The peasants consequently regard any attempt to improve land that they are to part with at the end of the year as a waste of time and money. Furthermore, each family's land is arbitrarily subdivided into three portions, one for planting, one for grazing, and one to lie fallow, reducing the possible cultivation to two-thirds of its natural extent.

In spite of the defects in the Russian system great quantities of grain are exported annually. Wheat is the principal crop, but rye, barley, oats, flax, linseed, and beet root are cultivated as well. In many parts the absence of snow and the shortness of the summer presents serious difficulties, yet two crops are almost invariably handled each year.

Cattle, sheep, and horse breeding form another important industry, and furnish the supplies used by the meat canners, as well as the establishments for the production of cheese, butter, tallow, and soap.

IMPORTS, EXPORTS, RIVERS, AND CROPS.

The tea traffic between Siberia and Mongolia and China forms the largest import trade. Other imports are piece goods, groceries, glass, finished metal goods, and pottery. Exports consist of grain, flour, linseed, coal, tallow, butter, cheese, hair, skins, furs, and cattle.

Out of the great number of Siberian rivers few are navigable, and those that are are closed during such a large part of the year that the amount of water-borne freight is limited. The rates, both by river and canal, on account of the short open season, are very high. The most important rivers are the Om, the Irtysh, the Ob, and the Yenisei—the two latter being connected by a canal which joins Tiumen and Irkutsk. Carts are generally used for transport, carrying large loads over almost impassable roads.

The border range of Siberia—the Urals—is low and well wooded, and falls away gradually into the steppes, which are unvaried save for forests of birch and fir, until the foothills of the mountains which surround Lake Baikal are reached. Thenceforward the country is rugged and grades considerably, until the Chingan Mountains are suc-

ceeded by the rolling grass country of northern Hei Lung Chang. While the miles of steppes showed only occasional signs of cultivation, a patch here and there or a little clearing in the brush, the country about Irkutsk is much more thoroughly settled; there are well-tilled fields, and the villages look more prosperous than those of central Siberia. Beyond Baikal, also, wheat and barley are grown in the valleys; but from Tchita to the east there are few signs of habitation, and the district between Manchuria station and Harbin is bare and wind swept, and almost untouched by the farmer. Around Harbin, however, the land yields a large annual crop.

HARBIN AND ITS FLOUR MILLS.

Harbin, the most important city in northwest Manchuria, is divided into nine parts—the administration, military, hospital, manufacturing, river, railway, old, new, and Chinese towns. The hospital town, however, is chiefly composed of barracks; and in the manufacturing town there is very little manufacturing. The flour mills are in the river town; they are fairly large, prosperous, and in most cases are adding to their plants. At present they are operated by steam power; but it is proposed to experiment with water power as well. Their machinery is almost entirely from Zurich; but some of the small pieces are made in Moscow. Grain is delivered to them at 40 kopecks (kopeck, one-half cent) per pud (36 pounds), and the flour sold at 1 ruble (ruble, 51½ cents) 90 kopecks, 1 ruble 80 kopecks, 1 ruble 65 kopecks, and 1 ruble 40 kopecks, per pud, according to the quality. The largest has a capacity of 3,000 puds per day, but this will be more than doubled when the additions are completed. American flour is still popular with the Chinese, but owing to the low cost of the native product it is being supplanted by degrees. Harbin is a distinctly Russian town; cabmen, waiters, and servants are white rather than Chinese.

South of Harbin the agricultural implements are even more primitive than in Siberia itself; but, as the country is extraordinarily fertile, the crops are large. The chief grain is kaoliang, a sorghum millet, which grows to a great height and which the natives use for flour and fodder. Beans form the other staple, there being little else except garden truck. The mineral wealth is entirely unexploited, with the exception of the coal mines at Fushun, which the Japanese work in a small way, and some coal deposits near Tiehling, which the Chinese are said to be working. The quality of coal from the Fushun mine is not very good, being filled with shale.

AMERICAN TRADE OPPORTUNITIES.

The most apparent need of Siberia and Manchuria is agricultural machinery. The territories are sparsely settled, and the areas capable of cultivation are great. Agricultural schools have been established at several places in Siberia, and a certain number of steam plows, reapers, and similar implements are now in use, but the field has never been thoroughly canvassed. At the large towns electric plants are in operation, which, with the general use of the telephone and the telegraph, show that there should be a demand for electrical machinery.

To secure a supply of pure water, artesian wells have been drilled at some places, and the sale of apparatus for this purpose, windmills for the isolated farmers, and filters should find a ready market, while the demand for mineral waters might be supplied by the exploitation of

the numerous mineral springs. Foreign canned goods ure used to a considerable extent in Siberia, although they must compete with the native article.

The sale of woolens, cottons, dust (automobile) glasses, cheap boots and shoes, cutlery, tools, axes, and lanterns would be increased by establishing closer relations with the local markets. In a few places there are grain elevators; but they are neither large nor numerous enough to handle the crops. The American investor, in partnership with a Russian, whose presence is necessary in order to represent the business with the administration and railroad officials, should find this also a source of profit.

TABLE OF TIMES AND FARES—HOTELS.

For convenience pounds sterling are reckoned at $5 and rubles at 50 cents in the following schedule:

	Time of departure.	Fares.
London to Berlin (via Dover-Ostend)	9 a. m.	$69.01
Berlin to Petersburg	10 a. m.	
St. Petersburg to Moscow	10.30 p. m.	
Moscow [a] to Irkutsk	12.10 a. m.	121.40
Irkutsk to Harbin	8.56 p. m.	
Harbin to Changchun	10.30 p. m.	5.00

[a] Government express trains leave Sundays and Thursdays; sleeping-car train on Wednesdays.

For food on the train $2.50 to $3 a day should be allowed, while hotel charges are as follows: St. Petersburg—Hotel de Europe, $1.75 to $10 per day; Hotel de France, $1.75 to $7.50 per day. Moscow—Hotel National, $1.50 to $5 per day; Hotel Metropole, $1.50 to $7.50 per day. Harbin—Gomaretle Hotel, $1.50 to $5 per day.

ITALY.

AMERICAN ROLLING STOCK INTRODUCED—WATERWAY PLANS.

Consul J. E. Dunning reports as follows, from Milan, on improvements to Italy's rail and water way systems:

During the past year the Italian Government has had direction of the country's railways. The Baldwin locomotives, twenty of which were purchased in 1905, have begun to arrive, and some of the American passenger cars are already on trial. The machines have been modified externally to meet the continental ideas of design; but they are American all through, and will be given a thorough test in all classes of work. The cars are side-corridor compartment carriages, of American design without and continental within. During the last few years passenger coaches in northern Italy have been gradually changing type under the influence of the St. Gothard trains. The line from Paris to Milan, via the Simplon tunnel, is running a sleeper, diner, and day combination train, the cars of which are externally typically American.

There has been a certain prejudice against American locomotives due to conservatism. American locomotive builders report difficulty in getting fair trials for their machines in Europe. The large purchase by the Italian Government is therefore extremely satisfying, since it assures a complete test during which the engineers who are to drive the locomotives will have time to overcome their prejudices and to get into close acquaintance with the machines. The new Simplon

tunnel line to Paris has brought the Milan district within less than fifteen hours of the seaboard and saved more than one entire mail day in the transit between New York and Italy. One of the largest union stations in Europe is being built in Milan, and will be ready in the summer of 1908. Passenger fares for distances over 100 miles have been reduced so much that in many cases the difference is as great as 45 per cent.

SHORTAGE OF FREIGHT CARS.

There is a great shortage of freight cars due to industrial development beyond the ability of the railways to handle. During the first year of governmental direction the lines hauled $7,500,000 more freight than in the previous corresponding period. For a country like Italy that is a gain sufficiently great to cause embarrassment under any circumstances, not to mention the unavoidable confusion of the transition from private to national management. The shortage of freight cars is being remedied as rapidly as rush contracts can make it possible. A recent strike among dock laborers at Genoa has caused considerable trouble among Milan shippers, for the single line between Milan and its seaport is always insufficient to handle the immense volume of traffic. The Government is to build another line through the mountains to Genoa in response to the urgent need of mercantile interests here. During 1907 the entire railway situation may confidently be expected to better itself, and Milan will not suffer.

MILAN TO BE MADE A "SEAPORT."

The great engineering scheme of deepening the channel of the river Po, from a point near Pavia outward to the sea near Venice, with the object of making a "port of Milan," by means of canal communication between here and Pavia, is finding favor. There is now a canal connection between Milan and Pavia, about 25 miles long, through an ancient channel which has been in active use for more than six hundred years. Thousands of canal boats from the Po come to Milan every year, pass through the city's canal system (which is founded on the old defensive moats of the middle ages), and proceed northward to the Italian lakes, or vice versa.

In connection with the Po project a general extension and rebuilding of this whole vast canal system is planned. This, with an ample basin on the outskirts of Milan, will give the city the rank of a port, though it is in fact many miles inland. The aim of the plan is to enable barges of several hundred tons burden to come in tow from the Adriatic directly to the city gates, there meeting and exchanging with other barges from the lake region, both forming a system of special transportation which is bound to have a decided effect upon the industrial development of the district as well as upon that of the entire Kingdom and southern Europe. The Government is giving practical aid by forwarding all the preliminary work of the undertaking, which is to be a Government work pure and simple, though the contracts will be open to bidders throughout the world.

WORKING OUT PLANS—DRAINAGE CANAL.

The entire subject of canal navigation is now in the hands of a special commission charged with its study, with a view to taking definite action toward the further systemization of the internal waterways of the district. This work is necessarily slow, and will bear fruit only

after careful investigations and estimates. In the meantime the finances of the Kingdom are becoming better able to bear the burden of great public works of this nature.

An interesting achievement of the year has been the completion of a drainage canal running from Mantua, through Reggio in Emilia, into the Po. Its purpose is to drain a series of swamps, drive off the incidental mosquitoes, and open new farm lands for cultivation. If American manufacturers of gasoline and other engines for auxiliary use will keep watch of the progress of canal improvement in Italy, their efforts will be rewarded in the next few years. The same may be said of manufacturers of "electrical mules" and other appliances for moving canal boats. The coming driving power in Italy is to be electricity, generated by the country's mountain streams.

GERMANY.

EFFORTS OF THE GOVERNMENT TO PREVENT ACCIDENTS.

Consul-General A. M. Thackara, of Berlin, writes that the Railway Administrations has obtained a tract of land a short distance from that city, and has built an experimental railway for the purpose of making various tests.

The tracks of the railroad form an oval, with a straight double track 820 feet long, the total length of the line being 5,761 feet. Electric motor cars are used. Experiments are made with different materials for bedding, with various kinds of rails, sleepers made of oak, pine, and beech wood, and of iron, in fact everything which is used in track construction. Tests are also to be carried on with various systems of automatic block signals; switch-locking devices; electric, steam, and benzine motor cars for railways—or, in other words, the plant is intended to be a station for testing everything which would tend to increase the working efficiency of the German railway system.

The following statistics in regard to accidents on German railways are interesting:

Year.	Accidents.				Killed or injured.[a]		Number of killed or wounded per 1 million train-kilometers.[c]
	Derailments.	Collisions.	Other.	Total.	Killed.[b]	Injured.	
1900	634	356	2,769	3,759	994	2,447	7.0
1901	555	302	2,440	3,297	881	2,038	5.8
1902	554	248	2,454	3,256	851	2,055	5.6
1903	477	258	2,385	3,120	878	1,979	5.3
1904	538	309	2,648	3,495	953	2,167	5.4

[a] Not including suicides, the number of which in 1904 on the standard guage railways was 260.
[b] In the number killed are included those who died within twenty-four hours after the accident.
[c] 621,370 miles.

In 1904 there were 33,444 miles of standard-gauge railways in Germany, of which 30,874 miles were operated by the State Railways Administrations and 2,570 miles belonged to private parties. Of the private roads 99 miles were also operated by the State Railway officials. In the same year there were 1,239 miles of narrow-gauge road, 550 miles being operated by the State governments and 689 miles by private concerns.

The various German Railway Administrations make thorough investigations of every wreck, little or big, and invariably some one is held responsible and punished for occurrence.

BRITISH NORTH BORNEO.

TWO NEW LINES TO BE CONSTRUCTED ON ISLAND.

Consul Lester Maynard reports from Sandaken on the two railroads to be constructed in British North Borneo. He gives the names of the constructing engineers and the consulting engineers of the British North Borneo government, all of which are on file for reference at the Bureau of Manufactures. Mr. Maynard writes:

The surveying expedition across the island of Borneo arrived at its destination, Surodong, at the mouth of the Surodong River, on the southeast coast of British North Borneo, on November 23, having been in the jungle for seven months, during which time they covered about 210 miles. The expedition left Jessleton on May 1, 1906, its object being to determine the possibility of building a railroad across Borneo, and by prospecting for minerals and observing agricultural possibilities to determine the advisiablity of building the road. Four Europeans accompanied the expedition, two for the Government and two civil engineers representing the London parties who will have the contract for building the road, and a representative of the British Borneo Exploration Company (Limited), which has the sole mineral rights for British North Borneo. Large coal measures were discovered about 40 miles from the east coast, and the road will be built to them from Surodong. Although it is possible to build a railroad entirely across the island, it would not be practical, as the country is a vast, dense jungle, very thinly populated.

The railroad from Jessleton to Beauford was constructed by the same firm and 30-pound American (Carnegie) steel rails were used. It is claimed that these are light, and that 45-pound rails would give more satisfaction; however, in other respects there was no complaint, and the American steel rails should be used for this new road.

The civil engineers are now starting a survey for the railroad from Tanjong Batu, on Marudu Bay, in the north, to Sandakan. This road will be about 150 miles in length and will be constructed by the same firm. A company has been formed to build this road and will receive from the British North Borneo Goverment alternate blocks of land, 40 miles square, along the entire route. This road will pass through large deposits of iron and its northern terminal will be at Tanjong Batu, where the manganese mines are located. This second expedition will be along the line in touch with the seacoast, where supplies can be sent ahead and should take about three months.

The first expedition passed within one mile of Dutch territory and penetrated a country never before entered by a white man, suffering many hardships and dangers from the savage tribes encountered.

MEXICO.

REDUCTION OF FREIGHT RATES.

Consul J. A. Le Roy, of Durango, writes as follows concerning the Mexican railway law by which the Government has the power of regulating freight and passenger rates, as well as freight classifications, etc.:

The various railway concessions have been made subject to this right of control. At intervals of four or five years revision of freight rates and classifications has been made. Freight rates have always been and still are high in almost all cases, in some very high. There has, however, been a tendency toward their gradual reduction. The revision of the present tariff has been under consideration for four or five months past. It perhaps would have been promulgated before now except for the recent operation by which the Mexican Central system was consolidated with the National Lines of Mexico, in which the Government has the majority of stock. Various interests have had their hearings in Mexico City in behalf of a reduction of freight tariffs.

Some of these reductions, if granted, should exercise a direct influence upon importations from the United States. For instance, plate glass takes the highest classification and rate under the present tariff. This has made plate-glass windows worth about three times their original cost in Mexico City, and more in some other cities of Mexico. There are comparatively few "show windows" in Mexico, both because it has not in past been the custom to display goods thus, and because, since that tendency has begun to display itself in all the larger cities, the cost of plate glass has been so high. It is expected that the new tariff will reduce the rate on this article, which should result immediately in larger sales.

The Agricultural Society asked for lower rates on a number of articles, among others on fertilizers, which it is believed will be granted. On the other hand it is said to have asked for an increase of the freight rate on baled cotton; the growers of Mexico are seeking to control the home market. A special ruling recently reduced the rates from the Rio Grande border on carload lots of cattle imported for breeding purposes, stimulating the purchase of thoroughbreds from Texas and other parts of the United States.

OPENING OF TEHUANTEPEC LINE.

The new railroad recently opened for traffic across the isthmus of Tehuantepec is expected to prove of great importance to the world's commerce. For the time being the new route will be directly available for the transportation of American domestic traffic only, the first steamship connections being those provided by the American-Hawaiian Steamship Company. Under a freight contract, which the steamship company signed in 1906, and particulars of which were given by Special Agent Pepper a year ago, about 300,000 tons of sugar will be shipped annually from Honolulu via Tehuantepec to New York, Philadelphia, and New Orleans. The distance from New York to Honolulu via Tehuantepec is 5,699 nautical miles, while the distance via Panama is 6,688 miles.

BULGARIA.

GOVERNMENT PURCHASES AND WILL EXTEND A LINE.

Mr. John B. Jackson, minister to Greece and Montenegro and diplomatic agent to Bulgaria, under date of January 21, reports to the Department of State in regard to the purchase of railways by the Government of Bulgaria. He writes:

Before its adjournment for the holidays, the Bulgarian Sobranje authorized the Government to enter upon negotiations looking toward

the purchase of the so-called "Chemins de Fer Orientaux." The railway lines in question are those which formed a part of the Hirsch project of 1869, before the existence of the Principality, and which never became a part of the national Bulgarian railway system, even after the absorption of southern Bulgaria (eastern Roumelia). They form a part of the main line between Vienna and Constantinople, as well as the branch which connects that line with the port of Bourgas, on the Black Sea. A loan is contemplated for the purchase in question.

When the purchase of these lines is completed, and their management combined with that of the national railways, the Bulgarian Government will be able to divert much of the freight which now goes to Dedeagatch, on the Ægean Sea, to Bourgas, and it was with this in view that certain provisions were introduced into the contract with the Fraissinet Steamship Company, to which I referred in a previous dispatch. According to the new contract with that company, it agrees to charge no higher rates on Bulgarian goods shipped at Black Sea ports than is charged on merchandise shipped at Dedeagatch or at Constanza (Kustendje) and Sulina, in Roumania. Dedeagatch is in Turkish territory.

CHILE.

EXPENDITURES TO BE MADE BY GOVERNMENT LINES.

Consul A. A. Winslow, of Valparaiso, reports that the Government of Chile has under consideration railroad improvements that will cost $30,000,000 United States gold, all of which it is proposed to push to the front as fast as possible. The consul continues:

It is proposed to expend about $4,880,000 United States gold in rolling stock, double tracking, and putting the present lines in first-class condition, and the balance is to be expended on new lines, principally on what is known as the Longitudinal. This is the line from the Peruvian and Bolivian frontier toward the south.

Here is a fine opportunity for American railway supplies. This business will extend over several years, and will be a fine outlet for American manufacturers. It will mean hard work for the first orders, but thereafter the business will be easier.

Great things may be looked for from Chile during the next few years, and the United States should largely get the benefit of it, but it must be understood that it will go elsewhere unless a strong effort is made to secure it.

COLOMBIA.

AMERICAN COMPANY RECEIVES BUILDING CONCESSION.

Consul L. T. Ellsworth, of Cartagena, forwards particulars of a railway concession given by the Government of Colombia to a Philadelphia company, which has organized the Colombian Central Railroad.

The concessionaire states that the new line will be built from Ciudad Reyes, on the eastern coast of the Gulf of Uraba, and will extend up to Medellin, thence to Cartago, which is at the foot of navigation of the upper Cauca—a distance of 400 miles. Branch lines are also considered; also the extension of the line from Cauca to Popayan. It is also possible that from Cartago a line may be constructed via Quindic to connect at Honda with the Bogota Railway.

GREAT BRITAIN.

REBATES STOPPED BY AGREEMENT.

An important agreement has been entered into by all the railroad companies of the United Kingdom, doing away with rebates, concerning which the London Financial Times says:

Hitherto it has been common for agents of competing companies to depart from scheduled rates and give private rebates in order to secure traffic. The companies have now combined to end this system. A board of arbitration has been appointed to decide disputes; and should an agent of a company offer special terms, which the board consider a contravention of the understanding, it will be within the power of the board to recommend to the particular railway company concerned the immediate dismissal of its agent. Any company found giving an improper rebate is liable to a heavy fine.

JAPAN.

GOVERNMENT CONSTRUCTION WORK.

Consul Charles B. Harris, of Nagasaki, reports that the Department of Communications of the Japanese Government has added to its fifteen-year railroad contemplation the building of three additional railways in that district, with a mileage of 312 miles, at an estimated cost of $20,734,000 United States currency, connecting the important interior city of Kumamoto with the east coast of the island, touching the prefectural towns of Oita and Miyazaki, as follows:

From Kumamoto to Oita, 84 miles, at $7,975,000; from Oita to Miyazaki, 181 miles, at $9,439,000; and from Miyazaki to Yoshimatsu, 47 miles, at $3,320,000. It is likely that work will soon be commenced on some portion of the lines, as the greater part of the prefectures through which the roads contemplated are to run are without railway facilities.

PURCHASING AMERICAN SUPPLIES.

According to official advices received by the Department of State, the South Manchuria Railway Company, which is under the direction of the Japanese Government, has decided to adopt the American system, and to place large orders for materials in the United States as an expression of appreciation of America's friendly attitude toward Japan.

STEAMSHIP ROUTES.

ARGENTINA.

AMERICAN LINE DIRECT TO BUENOS AIRES NEEDED.

Consul-General Alban G. Snyder calls attention to the fact that there is a lack of direct trade communication between the United States and Buenos Aires, the American goods imported being largely sent by the way of England. Mr. Snyder shows the bad effects of this situa-

tion, and tells in the following letter what should be done toward improving American trade in Argentina:

The service between Europe and Buenos Aires is regular and the trips are frequent, taking but from sixteen to twenty days, whereas voyages to the United States frequently take from twenty-five to fifty days. The chief improvement in the matter of shipping facilities between the United States and Buenos Aires should be the establishment of a fast steamship line between the two countries, as the present service may be considered the greatest drawback to the upbuilding of American trade with the Argentine Republic.

During the year 1905 but one cargo of lumber and one of car materials arrived in Buenos Aires from the United States, this being about from 1 to 2 per cent of the number of foreign vessels arriving at this port. In the same period of time 8 American sailing vessels left Buenos Aires for the United States, none carrying cargo. Only one American steamship has called at the port in the past two years. During the year named 143 (mostly English) vessels cleared from Buenos Aires carrying hides and skins, hair, quebracho wood, extract of quebracho wood, and wool. While there are but five American export and import firms in Buenos Aires, American goods are handled by many commercial houses, which number about three hundred.

EUROPEAN INTERESTS.

The principal imports into Buenos Aires are dry goods, preserved goods, manufactured articles, oils, machinery and tools, agricultural implements, lumber, and railroad materials. Of these England furnishes 34 per cent; Germany, 15 per cent; United States, 13 per cent; Italy, 10 per cent, and France, 9 per cent.

There is at this port an organized chamber of commerce which appears to be impartial in its attitude toward foreign countries, and where a few American technical and trade journals are to be found. Only members are admitted to this chamber of commerce. There is also a French chamber of commerce at Buenos Aires. In the consulate-general a number of such publications are kept on file for the free use of the public.

In Buenos Aires there are about fifteen foreign banks, not one being American, and it is thought that the establishment of an up-to-date American banking house would greatly better the country's interests in Argentina. Much foreign capital is invested in Buenos Aires, mostly English, all railways, street-car lines, gas plants, etc., being owned and operated by English or German syndicates, and it is noted that English and German capital continues to be invested in such enterprises. There appears to be an equally good opportunity for the investment of American money.

With a view of extending American trade with Buenos Aires, and the Argentine Republic generally, it is suggested that American commercial houses be established and Spanish-speaking agents be sent with a view of ascertaining the needs of the people and building up a bona fide and permanent trade. This, together with good packing and good and fast transportation, would tend to improve the outlook for the sale of American goods. Trade with Buenos Aires may be

materially increased if given sufficient attention. The following American merchandise would find a good market:

Watches.
Garden tools.
Haying tools.
Farm harness.
Metal bedsteads.
Carts and carriages.
Builders' hardware.
Well-boring machinery.
Dairy goods—large demand.
Groceries and canned goods.
Leather, and all manufactures of.
Electrical appliances and supplies.
Stoves, especially all kinds of oil stoves.
Office furniture and office appliances, all kinds.
Machine tools and all classes of small machines.
Agricultural machinery—sales already very large.
Furniture, petroleum lamps, and American novelties.
Wall paper—market must be studied for designs and size.
Paints and varnishes, now imported from France and Italy.

BRAZIL.

LACK OF TONNAGE FROM THE UNITED STATES.

Consul-General George E. Anderson, under date of December 29, furnishes the following in regard to lack of United States tonnage in the trade with Brazil:

For several months past there has been a notable lack of tonnage in shipping from the United States to Brazil. This state of things is not only unusual but it reflects most significantly upon the general shipping situation between Brazil and the United States. The bulk of such trade has consisted of coffee, which has long employed many thousands of tons of shipping each year. In earlier days the flour, lard, and preserved meat trade of the United States with Brazil offered considerable employment for this shipping on a return trip from the United States to Brazil after voyages with loads of coffee for American ports. The shipping between the two countries was profitable and prosperous. Gradually, however, the trade of the United States with Brazil in flour and provisions has declined until there is very little employment for ships on that account sailing from American for Brazilian ports. In the meanwhile American consumption of coffee has continually increased, causing a one-sided situation, with no return freight. A three-cornered trade route was then built up, vessels sailing with coffee from Brazil to an American port, thence to an European port with American produce, then to Brazilian ports with European goods. This triangular route caused a further decline in America's Brazilian sales with the decreased freight facilities for shipments of goods. Thus it has been difficult to improve steamship service between the two countries, and talk of and perhaps the necessity for a ship subsidy to aid American interests in this line have followed.

INCREASED EXPORTS TO BRAZIL.

There has been no very notable increase in the shipment of American soil products to Brazil in the last few months, but there has been a notable increase in the shipments of machinery, railway material, and similar commodities. The demand for tonnage for Brazil in the United States has led to a direct and notable interference with the triangular course of trade by way of England, and several ships have made direct trips from New York to Rio de Janeiro, abandoning their

Liverpool run for the time being at least. [Exports to Brazil were $4,196,142 larger in 1906 than in 1905.—B. M.]

Until within the past month, when the tax on coffee, which is the basis of the coffee valorization scheme, interfered with coffee shipments, there has been an extraordinary tonnage carrying Brazil's coffee crop—the greatest coffee crop in the history of the world—to other countries, notably to the United States. Yet much of this extra tonnage returning from the United States to Brazil has been unable to meet the present demand in American ports for tonnage for South America, particularly for Brazil.

Whether the present course of freight matters based upon increased shipments of American goods to Brazil means that the situation is so permanently changed that improvements in the service between Brazil and the United States can be looked for as a natural trade development remains to be seen. It seems safe to say, however, that if anything is to be done in the way of Government action in behalf of Brazilian-American shipping now is the time to do it. In the meanwhile the Brazilian company now maintaining a service between the two countries is promising in the very near future two 5,000-ton vessels with the latest conveniences and facilities for this service. Even when they are to be had, however, the long trip from one country to the other in them, due to the many ports at which they touch, will militate against their being used for through service.

CHILE.

IMPORTANCE OF FLAG IN SOUTH AMERICAN TRADE.

Consul A. A. Winslow, of Valparaiso, reports that the shipping facilities between the United States and Chile are not what they should be in order to develop business between the two Republics. He furnishes the following particulars:

There are two freight lines between here and New York that sail under the British flag. One makes two sailings per month and the other one sailing. The freight rate is fair, being 21 cents per cubic foot. They give very satisfactory service considering everything, but there should be one or two lines for this coast sailing under the American flag, and until this is the case England and Germany must be expected to have the best of the trade in this part of the world.

Something should be done to encourage American shipping if the United States is to get the trade it should have in this part of South America. I do not pretend to say how this can be done, but I do know it should be accomplished, and that the sooner the better for the interests of the United States in general. After a careful study of this question for several years at different points—Europe, Central America, and now at this post—the writer is convinced that money and attention can be put to no better use than in building up American shipping.

Now is the time to make a strong move for the trade of this part of the world, as the feeling toward the United States is more friendly than for years, and American made goods stand high. The American flag should be seen flying over steamers in this port every day instead of its being a rarity.

IMPORTS OF CHILE.

During 1905 the imports of Chile amounted to $56,578,925, of which the United States furnished 10 per cent, nearly one-third of which was machinery and one-sixth oil; while Germany furnished 25 per cent, of which one-fifth was machinery and one-fourth textiles; and England furnished 37 per cent, of which less than one-tenth was machinery, while more than one-third was made up of textiles. It is plainly to be seen that America is in a position to supply this trade if the business men can get it. This can be secured if sufficient attention is given to it, and it is hardly fair to expect the exporter to bear all the burden, when the transportation facilities are against him. What is true of Chile as to foreign commerce is true of the other countries of the west coast of South America, which import in the aggregate more than $150,000,000 of which the United States is not getting much more than 10 per cent.

It is timely to insert a warning against poor packing. It will do but little good to work up business if American exporters insist on such poor packing as is very often sent out. It is ruinous to business. A few cases of such careless packing as I have been shown of late, and a purchaser is discouraged and goes to some other country for his goods, and no one is to blame but the exporter. As it is, the innocent must suffer with the guilty, since all are discredited because of the faults of a few, though in this case I am not so sure it is a few.

The freight rates via Panama are nearly 50 per cent heavier than through the Straits of Magellan, and the time is usually no quicker. It is stated that the steamers direct from New York are of late fully loaded. The freight rate from European ports to Valparaiso varies from 14 cents per cubic foot for bar and strap iron to 60 cents per cubic foot for the highest class of freight. This rate is said to be cut to heavy shippers.

ANNUAL TONNAGE AT VALPARAISO.

The following statement, showing the number and annual tonnage of steamships entered at the port of Valparaiso, Chile, is taken from the report of the British acting consul-general at that port:

Nationality.	1904.		1905.	
	Number.	Tons.	Number.	Tons.
British	204	499,162	211	528,227
German	87	248,012	90	265,462
Chilean	58	93,171	55	85,606
French	8	24,799	7	21,580
Belgian	1	3,009	2	5,966
Danish			2	5,060
Argentine			2	2,442
Dutch			1	2,327
Norwegian	1	2,177		
American	1	743		
Total	360	871,073	370	916,670

URUGUAY.

STEAMSHIPS SECURE TO EUROPE THE BULK OF TRADE.

Consul John W. O'Hara, of Montevideo, reports that American trade communication with Uruguay appears to be limited and insuffi-

cient. He furnishes the facts and their bearing on trade, also a statement as to what that trade amounts to, writing:

During the last fiscal year but 16 American vessels arrived at Montevideo, against 3,489 of other nationalities, 1,414 of the latter being British. In the past year but 15 American vessels cleared from Montevideo, 5 taking cargo, against 128 foreign vessels, 39 of the latter taking cargo, 28 of which were British. One of the first steps necessary to be taken in improving the commercial relations between the United States and Uruguay would be to establish a first-class steamship line between the two countries, with ample accommodations for cargo, passengers, and freight. One of the greatest hindrances at the present day is the length of time which elapses in receiving goods and mail.

The imports into Uruguay are principally beverages, comestibles and spices, tobacco and cigars, ready-made clothing, raw material, machinery, soft foods and materials, and live animals. These in 1905 represented $1,756,579, a material increase over the previous year. There are no available statistics indicating the countries from which these goods are imported, but with the exception of lumber, petroleum, agricultural machinery, shoes, sewing machines, wire, furniture, woolens and novelties, amounting to $2,000,000, all the importations are from Europe.

There is not an all-American commercial house in Montevideo, American goods being sold from catalogues on the order from the purchaser. There is one exporting house and an importing house, of which one member of the firm is an American. Compare with this the 356 foreign importing firms and 78 exporting firms and it will be seen that the sellers of other nations in Uruguay, with their wholesale commercial houses, merchant vessels, prompt and dependable mail service, and local solicitors to investigate the needs of the trade, are much better equipped than those of the United States. England has 17, Germany 40, France 24, Italy 110, and Spain 58 importing houses located here.

BANKING AND BUSINESS OPPORTUNITIES.

While Uruguay has extensive banking facilities, fully adequate to the proper conduct of business, not one American bank is to be found in Montevideo. There are sixteen banks in the city, four of which are English and eight native. It is thought that the establishment of an American banking house, with branches in surrounding cities, would greatly serve to promote American business.

Owing to extensive trade with Uruguay and public and private enterprises here, England is naturally the most favored among foreign nations by the chamber of commerce, where an insufficient number of American technical and trade journals are to be found on file. A large number of such publications are filed in the consulate.

Openings for trade with Uruguay appear to be numerous, as all classes of American merchandise are in demand and could be readily sold. Opportunity is also open for investment of American capital in the development of railroads, river navigation, stock raising, and operating the numerous mines.

MEXICO.

BRIGHT PROSPECTS FOR MARITIME TRADE.

Consul-General A. L. M. Gottschalk, of Mexico City, reports that the past year has brought forth particularly good results in the maritime trade of Mexico which it is confidently expected will keep increasing as it goes on.

It is of course plain that with the opening of the Tehuantepec Railroad to the traffic of the world during the first month of 1907 all the harbors of both coasts of the Republic will be more frequently visited by merchant vessels. It has been estimated that at the present time more than 350 vessels of different sizes are employed in the coastwise trade of Mexico.

The particularly large companies doing Mexican service are:

The Austro-Mexican doing a transatlantic trade between the Austrian, Italian and Spanish ports and those of the Gulf of Mexico; the Imperial German Line, the French Transatlantique and the Transatlantica-Española from the chief ports of Europe call at Veracruz and Tampico. The Leyland Line, the Atlantic and Gulf of Mexico and Harrison Line also bring freights to Mexican ports. The New York-Cuba ("Ward" line) operates between New York, Havana, Veracruz, and Progreso. The Gulf ports are also visited by the Mexican-Americana and Escanlante & Son's vessels. There is also a Canadian line trading between Canadian ports and the Gulf ports of the Republic.

On the Pacific side the lines touching at the various ports on call are as follows: The Pacific Mail, Compañía de Vapores, California Gulf Development Company, Compañía Costeña del Pacifico, Kosmos Line, J. B. Abaroa Line, Compañía Navegación por Vapor, Commercial-China and the Maison Line.

Thus there are 21 lines of ships which are doing much to increase Mexican trade.

On the gulf side the principal ports are: Ascensión, Campeche, Coatzacoalcos, Frontera, Laguna, Morelos, Nautla, Progreso, Tampico, Tecolutla, Túxpan, Veracruz and Xcalak.

On the Pacific side the chief ports are: Acapulco, Aguíabampo, Altata, Bahía de Magdalena, Ensenada de Todos Santos, Eureka, Guaymas, Loreto, Manzanillo, Mazatlán, Médano Blanco, Puerto Angel, Salina Cruz, San Benito, San Blas, San José del Cabo, San Quintín, Santa Rosalía, Tonalá and Topolobampo.

GREAT BRITAIN.

SHIPPING GROWTH LAST YEAR EXCEEDS PREVIOUS RECORDS.

Consul H. W. Metcalf, of Newcastle, sends a clipping from the Journal of that city, from which the following is taken:

Lloyd's Register annual returns are always interesting, as showing how we stand in relation to shipbuilding and shipping. In several ways the returns for the past year are remarkable. They show what was, of course, previously known, viz, that the output of merchant tonnage exceeded all previous records. It amounted to 1,828,000 tons, and is more than 200,000 tons in excess of the production of 1905. The world's output for the twelvemonth shows an increase of about 400,000, so that this country is responsible for about one-half of the advance. When allowance is made for losses, sales to foreigners, and other forms of wastage, our merchant fleet has made a net gain on the twelvemonth of 764,000 tons. The nearest record to this

in recent years was the net increase of 643,000 tons in 1902. That for 1905, the previous "record" year, was 469,000 tons.

It is clear from these figures that not only is our shipbuilding industry in a vigorous condition, but that our shipping trade, in spite of ups and downs and numerous disappointments, is also making tremendous progress. Compare our position with that of other countries. Of our total output last year, over 20 per cent was on foreign account, Germany being once again our largest customer. She accounts for nearly 5¼ per cent of our total production. At the same time German shipping is growing steadily. The German output last year was 318,000 tons, which is more than 60,000 in excess of that of 1905 and, compared with 1898, the German production has more than doubled. French shipbuilders, on the other hand, launched only 35,000 tons, as against 73,000 in 1905.

LARGER DECK CARGOES.

NEW BRITISH LAW BECOMES OPERATIVE IN CANADA.

Consul-General W. R. Holloway quotes as follows from the Halifax Chronicle:

Word was received here that the new British act increasing the deck-load limit to the height of a steamer's rail, providing that it be not more than 7 feet above the deck, has been put in force and the Canadian act of the same provisions passed last year will now become law. It has not yet been proclaimed, but the St. John collector of customs has instructions to clear steamers having the large deck load, on their indemnifying him from any consequence that may ensue pending the proclamation. The steamer Manchester Importer has sailed thus loaded for Manchester, being the first from here under the new law. Heretofore the winter deck load limit has been three feet.

BULGARIA.

DIRECT LINES TO FRANCE AND ITALY.

In a report on steamship communication with France and Italy, Minister Jackson writes:

Further evidence of the desire of the Bulgarian Government to extend the commercial relations of the Principality is shown by the renewal of the arrangement made in 1903 with the Fraissinet Steamship Company, of Marseille, for the maintenance of direct communication between Bulgarian ports and France and Italy. According to this arrangement a regular service is to be maintained until September 1, 1910, between Varna and Bourgas, and Genoa and Marseille. Steamers are to sail twice a month, and the Bulgarian Government is to pay a subsidy of two francs (39.6 cents) per ton on all merchandise exported from Varna, Bourgas, Baltchik, Cavarna, Messemvrie, and Anchialou (all Black Sea ports), as well as to grant certain facilities not granted to other steamship lines in regard to port dues, etc.

AUTOMOBILES.

EGYPT.

MOTOR CARS BECOMING COMMON—TOURIST MOTORING.

Consul-General L. M. Iddings, of Cairo, transmits the following report on motor cars in Egypt:

The number of automobiles in Egypt this winter has greatly increased over those of last year. Machines registered in Cairo

now number 264; last season, 75; in Alexandria, 127, as compared with 120 last season. In Cairo one or two new garages have been built. Most of the cars owned by residents are French, but the tourists have brought in all kinds. The opinion of everybody is in favor of cheap cars, which have a closed-in top and are of small horsepower. There are no hills to climb. Roads for police service in the Eastern Desert are in construction by the mining department of the ministry of finance and considerable progress has been made.

The road from Edfou to Beza has been completed and consists of an excellent track 90 miles long. From Beza it will branch to the south and north. The southern line will go through the emerald fields, while the northern branch will join the Keneh-Cosseir road from the Nile Valley to the Red Sea. Keneh is another base for a road northward. This road is now building along the old Roman way, which was constructed in order to bring the porphery from the Red Sea coast to the Nile, where it was floated down the river to be sent to Rome. This road, as at present planned, is to end at Ghattar, which is 90 miles from Keneh, and is half way to Gebel Zeit.

The Edfou-Beza road has been largely used for motoring and the new type of motors, which have been built for the use of the department of mines, has been found satisfactory. Motors are a far less costly and difficult means of conveyance than camels. The longest day's run in the Eastern Desert was made last midsummer, when 148 miles were traversed. During the last trip of the mining department's tricar 243 miles were accomplished in four days, which were spent in the ordinary work of inspecting roads and mines.

MOTORING IN THE DESERT.

The following details of the work accomplished by two tricars and the motor cycle during their journeys in the Eastern Desert are of interest as showing with what economy motoring is practicable in the desert:

Tricar No. 1, 6 horsepower.—Total mileage covered, 2,280; average miles per gallon petroleum, 25; average lubricant per 100 miles, pints, 1.6; total cost per mile, including repairs, maintenance, spare parts renewed (but not including depreciation), milliemes, 22.87.

Tricar No. 2, 9 horsepower.—Total mileage, 1,051; average miles per gallon petroleum, 25.8; average lubricant per 100 miles, pints, 2.4; total cost per mile repair, maintenance, spare part renewals, allowing for depreciation in tires, milliemes, 13.34. (Milliemes 8.34, not allowing for depreciation.)

Motor bicycle.—Total mileage, 1,462; average miles per gallon petroleum, 63.8; average lubricant per 100 miles, pint, 0.35; total cost per mile, milliemes 22.2.

Ordinary pneumatic tires protected by suitable leather and iron studded bands are used. It has been found that the 3-wheeled motor cars are far more suitable for desert traveling than the motor cycles, as the latter cause a great deal of strain to the rider. Water is not necessary for motoring, except at intervals of 50 miles.

The Port Said Motor Car Company started its service recently, the run being to the Arab village. The cars can do the journey in less than half the time taken by the trams. They accommodate 25 passengers each.

INDIA.

HIGHER-PRICED CARS IN GREAT DEMAND—ANNUAL EXHIBIT.

Consul-General William H. Michael, in writing from Calcutta about the opening of the annual Indian Exposition, in January, for the display of various modern mechanisms, says that Indian princes are buying high-priced French and Italian motor cars without knowing anything about the high-grade automobiles made in America, but that this will not last long, for Americans are too wide-awake for that. Mr. Michael writes under date of December 20:

I called attention several months ago in a report, to the annual Indian Exposition that will open here about the 1st of January, and suggested that American manufacturers of agricultural implements, small machinery, vehicles, automobiles and bicycles, and improved domestic apparatus having representatives in India take the necessary steps to have their manufactures represented at the exposition. So far as I have been able to learn but few American products will be seen at the exposition. There will be one, possibly two, American automobiles exhibited, whereas there ought to be at least a dozen. The United Colonies and the Continent will be well represented in respect to automobiles, and motor vehicles of many kinds, but the United States is conspicuous at the exposition by her absence.

There is a keen interest throughout India in all kinds of motor vehicles and this interest is growing rapidly. Last year the importations of all kinds of motor vehicles into India amounted to $1,666,666, and dealers in Calcutta look for a large increase during the year 1906–7. American manufacturers should have their share of this trade and the Indian Exposition referred to offered a good chance to make an exhibit that would count in dollars and cents.

IDEAL COUNTRY FOR AUTOMOBILING.

Speaking of automobiles, it will not be out of place to speak of them in a general way as the vehicle for this country, and India has not been backward in finding out this fact. Every tourist comments enthusiastically on the splendid roads for motor traveling in India, roads that form a network over the face of the country. Well-kept roads of easy gradients are found everywhere, and nowhere is found any disagreeable municipal restrictions that worry the motor tourist in so many countries. In Bengal and other parts of India, where the climate is very trying on horses and persons, the motor is found to be just the thing, not only for quick transportation but for comfort. The headway breeze made by the motor car affords relief to the traveler from the heat, and there is not that exhaustion felt that comes from horse or "garry riding."

There will be an exhibition of motors in Calcutta in January, at which trials of speed and endurance will be had, similar to those at Mysore recently. The Southern India Motor Union will participate and it is expected that the motor car will be given a great boom.

LARGE AND HIGHER-PRICED CARS WANTED.

It would seem that India has got beyond the stage of the amateur in motoring. Her timidity in the use of the automobile is a thing of

the past, and her princes, rajahs, and young men of business want something better and faster than "runabouts."

The government is considering the desirability of using motor-transport wagons for freight in moving produce of out-of-the-way districts to market. This is entirely practicable, considering the good roads of the plains in India, and it would solve a problem that has given much perplexity to the government. Sight-seeing motor cars, of handsome appearance, have been put on the streets of Calcutta within the last month and seem to be doing a good business.

American manufacturers of all kinds of motor vehicles would do well by giving immediate and business-like attention to this field as an inviting one for future orders.

GREAT BRITAIN.

MOTORS SUPPLANTING CARRIAGES.

Consul F. I. Bright, of Huddersfield, reports that the extension of the street-car service and the popularity of automobiles has decreased the trade in vehicles drawn by horses in that part of England. Carriage builders of Huddersfield have met the adverse conditions by building motor car bodies.

The number of motor cars in Huddersfield is estimated at 317, and motor cyles at 66. A good hill-climbing automobile would gain favor, the district being a hilly one. The number of foreign-made machines is small, there being now apparently only one American motor.

ITALY.

BICYLES AND AUTOMOBILES OF TOURISTS.

Consul-General H. de Castro, of Rome, reports the regulations of the Italian Government concerning bicycles and automobiles.

He writes that the exemption from tariff duties to those bringing in bicycles and automobiles is granted only to persons who do not reside in Italy, and then only when such persons deposit an amount equal to the duty, or are vouched for by foreign and local cycling societies, registered at the custom-house. When so vouched for a card is given the party which secures freedom from further trouble, no deposit being required. In each case the deposit is paid back when the party leaves Italy with the machine. These cards are valid for three months, but may be extended for a like period.

SPEEDOMETERS.

PATTERNS AND PRICES OF THOSE SOLD IN GERMANY.

Consul Thomas H. Norton, of Chemnitz, makes the following report on the use of speedometers on automobiles in Germany:

The use of the automobile is spreading rapidly in Germany, and numerous manufacturers are now meeting the growing demand. Several of these manufacture speedometers among their automobile accessories. French speedometers are largely in favor thus far. Two other favorite forms now sold in Germany are modelled closely after the principles of the standard French indicators. The 1907 model is

sold at the following prices: Indicating 1 to 90 kilometers (1 kilometer=0.621 miles), $47.60; 1 to 125 kilometers, $59.50, and 1 to 160 kilometers, $71.40. Prices include flexible tube connection and attachment to axle. This form weighs 1½ kilograms (3½ pounds) and is made of aluminum. The mechanism is comparatively simple.

In Germany, as in all Continental European countries, the dials of speedometers and cyclometers are arranged to indicate kilometers. The import duty on automobile accessories is not high, 1 mark per kilogram, or 10.8 cents per pound, and has practically no effect on the sale of an article worth $100 or more, with a weight of less than 4 pounds. German factories, however, turn out wares involving much handwork and a high degree of mechanical accuracy so cheaply that foreign competition becomes difficult.

There are three automobile agencies at Chemnitz, all doing a fair amount of business, as the well-kept roads of Saxony are peculiarly inviting for rapid travel. [Names of the agencies may be obtained at the Bureau of Manufactures.]

MOTOR BOATS.

BRITISH HONDURAS.

INCREASE IN THE NUMBER OF BOATS USED AND IMPROVED TRADE.

The use of gasoline engines in British Honduras is dwelt upon in a report from Consul W. L. Avery, of Belize, who says that the importation of oil for launches increased from $693 worth in 1903 to $6,379 in 1906. Speaking of the use of motor boats, he says:

In 1903 an American imported the first gasoline engine into British Honduras, fitting it to a 25-foot open boat. It was successfully used in towing logs in smooth water and for other purposes. Now there are 30 boats afloat and building, with a probability of the number being doubled. The local government has 4 boats in commission, and offers encouragement to all by admitting gasoline and all fuel oils free of duty, if for use by water craft. The engines imported have been, with two exceptions, of American manufacture, and I am informed that they have given satisfaction. The State of Michigan has supplied the greater number. This cheaper means of transportation foreshadows that lower freights warrant larger purchases, and such increased purchases will be very largely from the United States. With no railroad, and less than 40 miles of wagon road in the colony, freight charges to the interior settlements of British Honduras have been very high. The traffic on the long coast line of 200 miles has been, and probably long will be, handled by sailing sloops and schooners, for rates are low and time is no object; but for the many towns and villages on the rivers reliance has been placed on rowing, etc., and the service has been expensive, very uncertain, and in the rainy season often at a standstill. The long stretch of 140 miles by river from Belize to The Cayo, for instance, was seldom covered in less than six days, but now, by launch, it takes but thirty-six hours. The "chug-chug" of the motor boats creates no surprise, except surprise that they were so long in coming.

In June, 1906, a 48-foot 22 horsepower boat of light draft was

started on a regular run to The Cayo, and now a barrel of pork, or flour, which for years cost $5 for freight, is carried for $3.50, and the near approach of competition will lower all freight and passenger charges. The steamers now connecting by weekly service the largest and second largest towns in British Honduras, Belize and Corozal, will be replaced in a few months by an American built, twin-screw vessel, using gasoline for motive power, so that all indications point to a $10,000 figure for fuel oils for 1907, and an ever-increasing demand thereafter.

BRAZIL.

A GOOD SALES OPPORTUNITY PRESENTED.

Consul George A. Chamberlain, of Pernambuco, thinks there is a good opportunity in his consular district, also in Rio de Janeiro and Bahia, for the sale of motor boats. The best way to sell, he says, is to send a traveling agent or salesman. He sends the names of parties who may be induced to act as agents, among them one American firm. These may be obtained from the Bureau of Manufactures.

JAPAN.

POSSIBLE MARKET AT YOKOHAMA AND NAGASAKI.

E. G. Babbitt, vice-consul-general at Yokohama, writing about motor boats in his consular district, says there are not more than six launches in the harbor of Yokohama propelled otherwise than by steam, the rough water and work being best met by steam launches. There are no pleasure launches of any kind, due to the absence of rivers and long reaches of calm waters. Nagasaki has a small number of pleasure craft and might prove a good market for motor boats.

GENERAL VEHICLE TRADE.

URUGUAY.

MONTEVIDEO A GOOD MARKET FOR AMERICAN PRODUCTS.

Consul J. W. O'Hara, of Montevideo, reports that a line of American carriages, buggies, phaetons, wagons, and drays might find a market in that country if properly presented. He writes:

Quite a number of American carriages and phaetons have already been introduced. These vehicles are popular. The argument formerly used against them—that of their lightness—is now employed in their favor. These people are learning, by practical demonstration, that a light-built vehicle, implement, or machine, may be even more durable than a heavy one. A few years ago, when American manufacturers began to introduce their agricultural implements and machinery here, the same objection was urged, but a thorough test demonstrated that, while the American implements were much more lightly constructed, and therefore easier to operate, they were also more durable than the heavier European articles. The reputation thus gained will aid in the introduction of American vehicles.

The vehicles now in general use here for pleasure driving are the closed coach and the victoria. Some of these are made in this country,

while others are imported from France and England. The easy-running carriage or phaeton is preferred to the lumbering coach or the unwieldly and uncomfortable two-wheeled cart. Rubber-tired vehicles are used, but they are not popular. The general impression is that the streets, being paved with granite blocks, are too rough for rubber tires. They wear out too quickly. Besides, the dealers complain that the rubber tires heretofore tried were made of an inferior class of European rubber. They gave such poor results that they hesitate to try them again. American rubber is in good repute, but buyers say that they are not sure of securing it when buying from European houses.

WAGONS AND CARTS.

Most of the hauling and trucking is done with heavy carts, with wheels from 5 to 7 feet in diameter. They are drawn by three mules. These vehicles are very heavy, unwieldy and cumbersome for both man and animals. They are very unpopular with all except the owners. The local authorities are using every effort in favor of a more convenient and lighter conveyance, even placing the annual license tax for two-wheeled carts at double that placed on four-wheeled wagons. These carts are all manufactured in the country, the materials being imported, and their cost is about $186 American money. A lighter cart is in general use for delivering small packages, but it is not convenient and should easily be replaced by a four-wheeled delivery van.

There are comparatively few wagons in use here. Those in use are heavy and broad gage, and while they are much easier than the cart on the animals which draw them, they present the same objection of being high-wheeled and difficult to load and unload with large packages. Besides, when one horse is used, the traces are fastened on the inside of the shafts, without a singletree, the additional animals being hitched to the end of the axle or to the side of the cart. When a tongue is used the horses are fastened directly to the hounds, so that the strain on the horses' shoulders is steady and unyielding, except as the entire vehicle moves. A few single and doubletrees are now in use, but they are of recent date. These wagons are also made in the country and cost from $361 to $496 American gold.

MOTOR VEHICLES.

The local authorities are making an effort to introduce motor trucks, cabs, coaches, victorias, and busses, where practicable, to take the place of the present conveyances, and a petition for a concession to do so has just been presented to the municipal authorities. The bill for the concession specifies that the motor cars to be used shall be of the same type as those used in London and Paris. The law of the country makes it necessary that all vehicles for passengers or freight be provided with springs. This, it would seem, is an unnecessary expense added to the price, but it must be complied with while the law is in force. The tariff charges on wagons and vehicles of this class is 56 per cent on the value, which is fixed at the time of importation by the appraisers.

With respect to this trade, I do not advise the sending of illustrated catalogues. These are useful to a certain extent, but not as pioneers in a new market. Personal solicitation by salesmen who understand

the language is the only means of securing the results desired. As an illustration of what personal solicitation may accomplish, an American salesman representing a manufacturing establishment, whose trade in South America had been established by catalogues and local houses, says that in one visit to the different countries of South America he increased his firm's business tenfold.

AMERICAN EXPORTS.

FOREIGN SALES OF CARRIAGES, MOTORS, AND CARS.

The United States sold abroad in 1906 nearly $5,000,000 worth more of vehicles and railway cars than in 1905. The extent of this trade last year is shown in the following statement, compiled from figures of the Bureau of Statistics:

Whither exported.	Cycles.	Autos.	Railway and all other.	Total.
To Europe:				
United Kingdom	$271,474	$1,138,264	$727,870	$2,137,608
Belgium	27,836	.....	37,125	64,961
France	19,385	336,273	52,330	407,988
Germany	80,685	132,214	66,324	279,223
Italy	30,398	251,686	274,626	556,660
Netherlands	118,966	.....	18,950	137,916
All other countries	243,725	214,119	121,083	578,927
Total	792,469	2,072,506	1,298,308	4,163,283
To North America:				
Canada	66,388	878,885	1,297,208	2,242,481
Mexico	106,393	717,523	2,550,637	3,374,553
Total	172,781	1,596,408	3,847,845	5,617,034
To Central America	.....	.....	2,075,393	2,075,393
To West Indies:				
Cuba	31,180	.....	1,184,077	1,215,257
All other	21,683	.....	110,090	131,773
Total	52,863	240,989	1,294,167	1,588,019
To South America:				
Argentina	17,992	.....	2,395,741	2,413,733
Brazil	10,584	.....	296,004	306,588
Chile	.....	.....	225,109	225,109
Colombia	.....	.....	34,002	34,002
Venezuela	.....	.....	10,889	10,889
Other South America	20,367	.....	276,025	296,392
Total	48,943	166,814	3,237,770	3,453,527
Total America	274,587	3,004,211	10,455,175	12,733,973
To Asia:				
China	.....	.....	8,912	8,912
British India	.....	34,111	50,688	84,799
Japan	209,691	.....	321,366	531,057
Philippines	.....	.....	98,371	98,371
Other Asia	27,934	79,542	58,078	165,554
Total	237,625	113,653	537,415	888,693
Africa:				
British Africa	.....	.....	202,151	202,151
Other Africa	.....	.....	25,213	25,213
Total	.....	16,100	227,364	243,464
Australasia	83,783	192,668	591,779	868,230
All other countries	16,082	10,048	.....	26,130
Total exports	1,404,546	4,409,186	13,110,041	18,923,773

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RÉSUMÉ.				
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All other	16,082	10,048		26,130
Total	1,404,546	4,409,186	13,110,041	18,923,773
Total in 1905	1,320,496	2,695,655	10,047,882	14,064,033
Increase	84,050	1,713,531	3,062,159	4,859,740

The only vehicle imports concerning which official reports are given are automobiles: The imports of these (automobiles, and parts of) were $2,002,459 in 1905 and $4,910,208 in 1906.

ENGLISH RAILWAY PROFITS.

EARNINGS AND EXPENSES BOTH INCREASED LAST YEAR.

The London Statist, in presenting the results of the 19 principal English railways for the year 1906, as compared with 1905, says that last year was a distinctly good one from the point of view of gross receipts, and not unsatisfactory in regard to net earnings. There was a larger proportionate increase in expenditure than in gross receipts. Railway expenditure in 1906 was affected by the desire of many railways to devote more revenue than formerly to the improvement of their roadways and equipment. The desire of the companies to meet the demands made for increased wages to their employees also helped to swell expenditures in 1906, and furthermore the price of coal and other material had a tendency to advance during the year.

All the railways serving the great manufacturing districts of the country enjoyed a very large expansion of traffic, and there also was a moderate expansion in the earnings of railways which serve districts that can not be termed manufacturing. The Statist says that the passenger lines have in some degree suffered from the increased competition of tramways and motor omnibuses, but long-distance lines showed appreciable expansion. The gross earnings of the 19 companies were $425,750,600 in 1905 and $438,982,600 in 1906. Receipts from passenger trains increased from $188,752,100 to $193,204,900; freight trains from $215,011,700 to $223,056,100, and miscellaneous receipts from $21,986,800 to $22,721,600.

The total operating expenses of the 19 principal English railway companies increased from $264,401,800 in 1905 to $273,400,000 in 1906, making the net earnings $161,348,800 in 1905 and $165,582,600 in 1906.

MINES AND MINING.

THE WORLD'S MINERAL WEALTH.

BRITISH INDIA.

VALUE OF MINING PRODUCT—EXTENT OF DEPOSITS.

Consul-General Wm. H. Michael, in the following letter from Calcutta, tells what is being done in British India in mining precious minerals.

The number of tons of cornelian stone taken out in the Rajpipla State, province of Bombay, in 1905, was 467, valued at $2,330. Hyderabad produced corundum valued at $195, and Baghilkhand, in central India, produced 53 tons of the same mineral. Jodhpore State in Rajputana produced 4,810 tons of gypsum, valued at $800. Rajputana also produced 7,000 pounds of garnet, valued at $21,000. Garnet mining is mostly done in Rajputana, State of Kishengarh, where the mines are open to the public for the first three and last three months in the year, the other six months being worked exclusively by the State, which employs from 200 to 600 people daily, and the revenue derived amounts to $23,333 annually.

Quantities of thorianite have been taken from the river beds in Ceylon and sold at $8,500 per ton. Since the discovery of this mineral other minerals containing thoria have been found in the island. It is claimed that thorianite is the best substance known for the manufacture of incandescent gas mantles, and it is believed that a new and important industry has been opened to Ceylon.

JADEITE IN BURMA AND MAGNESITE IN MADRAS.

Burma continues to be the only province producing jadeite, the mines being situated in the Myitkyina district of upper Burma. The output in 1905 amounted to 2,685 hundredweight, of the value of $1,227,370, as against 3,778 hundredweight, of the value of $253,630, in 1904. In 1905, 2,342 hundredweight were exported through Rangoon and the balance overland to China.

The production of magnesite from the Chalk Hills in the Salem district of the Madras Presidency in 1905 is returned at 2,063 tons, or an increase of 748 tons over the output of 1904. The value, at $2.20 per ton, comes to $6,602.

MARBLE AND SLATE QUARRIES.

The marble quarries of Makrana in the Jodhpore, State of Rajputana, are officially reported to have turned out 1,726 tons of marble, valued at $5,510, in 1905, which is an increase over the preceding year. White crystalline marble in large quantities is also reported as being quarried in the Sagyin Hills near Mandalay in Burma. The government fees for permission to work the quarries amounted to $3,406.

The slate quarries of India that are being worked are located in the Punjab, United Provinces, Bengal, and Rajputana. During the year

1905 the production in the Punjab amounted to 11,300 tons, and in Bengal and Rajputana 241 tons, the total value being $27,750, which is not much of a showing compared with the output of the slate quarries of the United States. The Indian slate is of good quality and color, and the deposits are exclusive, but the demand for slate is not very extensive. The methods of working the quarries are of the most primitive character. The roofs of railroad sheds, mills, and godowns are all made of corrugated galvanized sheet iron, as also are the roofs of the houses and tea mills of Darjeeling. The manufacturers of corrugated galvanized sheet iron in the United States might find in India a good field for exploitation. The consumption of this kind of roofing in India is simply immense. Of course slate is much more durable than iron, and in other respects more desirable than iron, yet iron roofing is likely to be used for many years to come.

COAL MINING OPERATIONS.

There is need of coal-mining machinery in the Indian mines. Coal mining is now carried on in the most primitive way, and as a consequence is not meeting the demand for coal as should be done. A colliery proprietor writes:

> Poor raising; scarcity of wagons; steamers under demurrage waiting for coal; scarcity of labor in Bombay and other ports, with exorbitant rates demanded for discharging steamers; an extraordinary demand for coal for export; local and upcountry requirements, with grave doubts as to whether these can be met under the existing ruling conditions or those likely to be in force in the near future; all these sum up the present condition of affairs in the coal industry. In addition to all this there are a number of new coal concerns under development, with no possible chance of their obtaining anything like an adequate labor force sufficient for their requirements.

This is a queer condition of things, considering the fact that there is abundance of coal to be had by mining and there are millions of men and women in India anxious to work in the mines. If the operators would introduce modern machinery and pay living wages to hands, there would be plenty of coal to meet all demands.

No coal worth mentioning is mined in Burma, although prospecting for coal in the Chinwin district is going on. The Shwebo mines, which were thought to be quite promising, have been closed. The result of the explorations in the coal fields in the northern Shan States is reported to be disappointing on account of the inferior quality of coal found. Prospecting for minerals in Burma, however, is unusually active.

ASBESTOS DEPOSITS.

Recent prospecting in the northwest part of India has disclosed a number of veins of asbestos, samples of which have been sent to this consulate-general with inquiries as to the demand for asbestos in the United States. The veins are reported to be 4 feet broad and just how deep has not yet been ascertained, but it is believed by experts that the deposits are extensive. The quality seems to be good, and those directly interested are quite sanguine of being able to make shipments in considerable quantities within a short time. If orders can be had for the output in America, shipments can be made direct from Bombay to New York and Boston.

One of the gentlemen interested in the development of the mines occupies a high position in Calcutta, and any letters on the subject addressed to me will be placed in his hands. A sample of the asbestos

left at this office is sent herewith. [When received by the Bureau of Manufactures, samples of the asbestos can be obtained by interested persons.]

MICA EXPORTS AND PRICES.

The export of mica from India to the United States is increasing, and America is likely to become one of India's best customers for this commodity. The total production of mica in India during the year 1905 amounted to 25,641 hundredweight, of the value of $421,975. In the same year the exports of Indian mica rose to 133,159 hundredweight, as against only 18,250 hundredweight in 1904. The total value of the exports, $710,040 against $415,915, did not rise in 1906 in the same ratio, owing to the fact that in Bengal the mica now being mined is of very inferior quality. In the Madras Presidency the industry is expanding steadily, the number of mines having increased from 56 in 1904 to 87 in 1905. Present production is chiefly confined to Bengal and Madras, but 2,760 hundredweight were produced in the Ajmere district of Rajputana during the year. Mica of fair quality has also been reported to occur in the Kishengarh State of Rajputana, but does not appear to have been mined as yet. Of the production of 1905, Bengal contributed 14,601 hundredweight and Madras 8,280 hundredweight. The prevailing prices of mica in Calcutta ranged during 1906 from $1.38 per pound for one shipment of clear ruby down to 13 cents per pound for shipments of stained ruby.

ASIA MINOR.

TURKISH REGULATIONS—A GERMAN CONCESSION.

Consul E. L. Harris, of Smyrna, reports on the laws governing mining grants in Asia Minor as follows:

Broadly speaking the land of the Ottoman Empire is divided as regards ownership into four classes: (1) State land leased in perpetuity to private individuals; (2) State land lying waste; (3) land granted to and owned by religious institutions or village communities; (4) land owned by private persons absolutely.

The perpetual lease of State land is acquired by the payment of a lump sum in cash and an annual ground rent. Anyone authorized by the Government can cultivate waste land and thus be able to acquire a perpetual lease of such land subject only to the payment of the usual ground rent. By permisson of the Sultan the cultivator of waste land can become absolute owner of the land.

The advantage of owning land absolutely, as compared with owning the perpetual lease thereof, lies in the fact that the absolute ownership involves the partial ownership of all that exists under the surface in the form of metals or minerals, such as gold, silver, copper, iron, coal, etc., whereas in the case of land owned in perpetual lease, such wealth appertains to the State, the owner being only entitled to be refunded for the value of the ground, the use of which is acquired for the purpose of extracting such metals or minerals.

The right to work a mine is conferred by Imperial decree only, and is valid for ninety-nine years in the case of ores running in veins, and from forty to ninety-nine years in the case of ores such as chrome, emery, etc., which are found in masses.

A registration of the discovery is required, and this must be followed by a demand for a permit of research. Further proceedings can be

suspended for one to two years. Concurrently with this delay application may be made for the right to export 1,000 to 2,000 tons of the ore or metal, after which the privileges granted by the Imperial decree must be effected, the cost of which in fees amounts from $220 to $880. At any period in this process the rights acquired and registered can be disposed of and transferred to second parties. A royalty of 1 to 5 per cent ad valorem is charged on all metals extracted by means of shafts and galleries, and of 10 to 20 per cent on the products of mines whose mineral lies in masses.

Germany has a concession to build a railroad, which will extend into the center of Turkey in Asia, with the exclusive right to develop land and minerals in a stretch of territory 40 miles wide on each side of the road. Large corporate bodies of other nationalities are seeking and obtaining concessions to mine or build new and extend old railway lines. Even grants to bore for oil have been conceded.

ITALY.

MINING AND METALLURGY SHOW GOOD RESULTS.

Consul-General Hector de Castro, in the following report from Rome, shows that the condition of the mining industry in Italy has been producing most favorable results:

The output of the mines and quarries, as well as the production of the factories connected with the mining industry during the year last reported (1905), increased notably. The value of sulphur was about $250,000 and of zinc about $200,000 over the preceding year. Petroleum increased $150,000; fuel, $85,000; pyrites, $45,000, and mercury, $40,000. Iron, copper, and lead show a slight decrease. The increase in value of sulphur, mercury, pyrites, and fuel corresponds also to a greater output. The production of zinc, iron, copper, and lead was somewhat lower, but their value in money did not decrease, owing to better prices. In the aggregate the mining output for the year was worth $17,800,000, an increase of $740,000 over the previous year.

The value of the manufactured products of the foundries, iron shops, etc., in 1905 was $8,000,000 more than the production of the preceding year. The iron industry leads with an increase of $800,000 for pig iron and over $3,500,000 for steel and iron. Copper gained $2,000,000.

The metallurgical industry produced in 1901 wares worth $55,795,165, and in 1905 wares worth $66,925,425. The total product of the quarries, in 1905, was worth $9,000,000, or a little more than the previous year. The value of the kiln products was $26,000,000, an increase of $800,000 over the year 1904. Chemical products show an increase of $1,600,000 over 1904, the total production being $16,200,000 in 1905. The most important chemicals manufactured in Italy are the sulphate of copper, which is much used in the preservation of vines, and of phosphates for fertilizing purposes.

CHILE.

DEVELOPMENT AFFORDS OPENING FOR AMERICAN GOODS.

Consul A. A. Winslow reports from Valparaiso that the mining interests of Chile are very extensive and are growing rapidly.

This is especially true in the extreme southern part, where about $400,000 worth of American mining machinery, in the shape of dredges

and steam shovels, is employed in extensive placer mines. Many of the claims are very rich, and the deposits cover a strip of country 50 by 150 miles, extending over into Argentina and down onto the island of Tierra del Fuego. This country is rich in copper deposits, which are just beginning to be developed, and the future of this part of the Republic seems particularly promising, since extensive deposits of lignite are found in close proximity to both the copper and gold deposits, so that fuel can easily be had for use in the mines. The lignite comes to the surface in the sides of the hills. In one case the deposit worked was found to be 15 feet thick.

Punta Arenas is the center of this mining country, and is growing very rapidly. It now has a population of about 10,000, a gain of about 3,000 during the past year. Here is a good opening for American trade, as nearly everything must be imported. This is especially true of mining machinery, lumber, cement, and builders' hardware.

SCOTLAND.

COAL EXPORTS FOR LAST YEAR—FREIGHT RATES TO DISTANT PORTS.

Consul R. W. Austin, of Glasgow, reports on the shipment of coal from Scotland, during 1906, as follows:

The total amount of coal shipped was 13,921,584 tons, being an increase over the shipments in 1905 of 1,390,094 tons. The exports to the various foreign countries amounted to 9,072,115 tons, against 7,863,511 for 1905, an increase of 1,208,604 tons. This would leave an increase of only 181,490 tons in the coastwise consumption of coal in 1906 over 1905. The 1906 coastwise shipments, including bunker coal, was 4,849,469 tons, while that for 1905 was 4,667,979 tons.

The average freight rate paid on foreign shipments of coal during 1906 was slightly higher than the 1905 rate. The following are some of the rates from Glasgow in 1906: The average rate to the Italian ports of Genoa, Savona, Leghorn, and Terre was $1.54 per ton; to Venice, $2.12; to River Plata, South America, from $2.55 to $3.77 per ton; to Rio de Janeiro, Brazil, $3.40 to $3.77; to Barcelona, Spain, $1.88 to $1.64; to Oran, Algeria, $1.33, and to Marseille, $1.58.

The export prices of coal per ton in January, 1906, were: Splint, $2.42 to $2.54; steam, $2 to $2.17, and ell or house, $2.29 to $2.54. The prices continued to advance during the year, and after November 1, when the export duty of 24 cents was taken off, they had reached the following figures: Splint coal, $2.67 to $2.69; steam, $2.25 to $2.42, and ell or house, $2.44 to $2.69. On January 29, 1907, export coal was quoted as follows: Splint, per ton, $2.92 to $3.04; steam, $2.50 to $2.67, and house, $2.79 to $3.04. House or domestic coal retails in Glasgow in small quantities at $4.86 per ton of 2,240 pounds. A reduction varying from 12 to 60 cents per ton is made on the sale of larger quantities.

The quantity and value of declared exports of coal from Glasgow to the United States during 1906 was about 16,900 tons, worth $46,113, and in 1905, about 8,600 tons, worth $23,709, being an increase of $22,404.

COPPER OUTPUT.

CONTRIBUTION OF VARIOUS COUNTRIES AND DISTRIBUTION.

A statement published in the London Financial Times gives the estimated production of copper of the world in 1906 at 730,000 tons,

as against 708,000 tons in 1905 (presumably long tons of 2,240 pounds each). The Times gives the following particulars:

The output of the United States increased from 391,400 to 413,000 tons, and there was exported 211,100 tons, as against 247,100 tons in 1905. [American official figures, however, show that the exports of copper in 1905 were 238,798 long tons and in 1906 203,014 long tons, a decrease in exports of 35,784 tons.—B. M.] The total imports into Europe increased 20,500 tons, of which no less than 12,700 tons came from Japan. Australia sent 8,100 tons and Mexico 1,000 tons more than the previous year. On the other hand, consignments from Chile decreased 2,300 tons, from Peru 2,100 tons, and from Cape Colony 1,000 tons.

The principal countries consuming copper were: United States, 300,300 tons, as against 273,792 tons in 1905; United Kingdom, 80,451 tons, as against 60,491 tons; Germany, 165,107 tons, as against 136,875 tons, and France, 56,328, as against 48,619 tons.

The requirements of England were so heavy during 1906 that there was a material falling off in transshipment business, exports having declined 7,800 tons. Germany increased her exports over 4,000 tons. Throughout the year the average of stocks in England and France was 6,600 tons, as against 10,500 tons in 1905, and the average total visible supply was 11,800 tons, as compared with 16,400 tons. The record of average deliveries was 7,900 tons, as against 7,300 tons. The average price of standard was $425.42 per ton, as compared with $338.67 in 1905, and the average price of ingots was $449.12.

METALLURGY.

IRON AND STEEL EXPORTS.

TRADE OF UNITED STATES AND GREAT BRITAIN COMPARED.

While the United States leads the world in the production of iron and steel, the turnover is largely for home consumption. The following table shows the American exports of iron and steel for the past two years (hardware not included) and the comparative British exports:

Articles.	American.[a]		British.[a]	
	1905.	1906.	1905.	1906.
	Tons.	*Tons.*	*Tons.*	*Tons.*
Pig iron	49,221	83,317	983,306	1,667,431
Iron bars, rods, angles, etc	35,868	62,747	134,309	151,052
Rails	295,023	328,036	546,569	463,240
Other railway materials	(b)	(b)	191,992	191,773
Girders, beams, joists, and pillars	84,294	112,565	63,965	107,382
Plates, of all thicknesses	84,109	123,936	204,568	280,058
Sheets, galvanized or corrugated			406,815	443,131
Pipes and fittings	155,590	158,798	217,502	295,302
Black plates			68,839	65,698
Tinned plates and tinned sheets	8,894	13,532	354,864	375,414
Hoops and strips	4,962	6,054	41,980	45,310
Steel bars, rods, angles, etc	29,522	42,030	151,879	198,948
Steel ingots, blooms, billets, slabs, etc	237,738	192,606	8,594	11,736
Wire and manufactures thereof	159,721	194,895	81,201	95,119
Nails, screws, and rivets	1,231	1,536	24,647	29,460
All other			240,352	267,792
Total	1,146,173	1,320,062	3,721,382	4,688,846

[a] American tons of 2,000 pounds, British tons of 2,240 pounds. [b] Not given.

In British statistics quantities are given for all exports; in the official returns for the United States quantities are given only for the articles enumerated in the foregoing table. The articles which should fill out the American columns, but for which quantities are not given, are car wheels, castings, safes, stoves and ranges, and all other iron and steel goods, which were exported to the value of $15,706,750 and $18,784,694 in 1905 and 1906, respectively.

GROWTH OF FOREIGN TRADE IN IRON AND STEEL AND PRODUCTS.

All the grand divisions and nearly all the countries of the world were purchasers of the iron and steel manufactures exported from the United States in 1906. The following statement has been compiled from figures of the Bureau of Statistics, showing the exports of American iron and steel and manufactures thereof during the past two calendar years:

Articles.	1905.	1906.	Increase.
Pig iron	$762,899	$1,506,774	$743,875
Bar iron	1,255,418	2,575,905	1,320,487
Bar or rods of steel	1,554,736	1,978,498	423,762
Billets, ingots, and blooms	4,701,909	4,094,659	a 607,250
Hoop, band, and scroll	182,431	242,776	60,345
Steel rails	7,310,029	8,903,491	1,593,462
Sheets and plates:			
Iron	460,995	1,139,526	678,531
Steel	2,889,084	4,081,915	1,192,831
Tin and terne plates	702,977	1,001,688	298,711
Structural iron and steel	4,357,186	6,140,861	1,783,675
Wire	7,061,442	8,770,042	1,708,600
Builders' hardware and saws and tools	12,460,063	14,273,137	1,813,074
Castings, not elsewhere specified	1,595,711	2,033,527	437,816
Cutlery	521,141	586,960	65,819
Firearms	1,687,029	2,493,979	806,950
Machines and machinery:			
Cash registers	2,210,990	2,664,113	453,123
Electric machinery	7,409,242	8,274,753	865,511
Laundry machinery	646,654	652,331	5,677
Metal-working machinery	5,625,044	7,913,327	2,288,283
Mining machinery	(b)	2,837,240	2,837,240
Printing presses, and parts of	1,500,603	2,047,773	547,170
Pumps and pumping machinery	3,737,774	4,122,706	384,932
Sewing machines	6,474,992	7,845,228	1,370,236
Shoe machinery	1,383,005	1,470,908	87,895
Locomotives	5,573,080	7,430,277	1,857,197
Stationary engines	1,184,784	1,931,038	746,254
Boilers and parts of engines	2,486,589	2,633,210	146,621
Typewriting machines	5,102,980	5,694,244	591,264
Windmills, and parts of	(b)	440,691	440,691
Wood-working machinery	853,426	936,288	82,862
All other machines and machinery	25,527,058	26,360,071	833,013
Total machines and machinery	69,716,221	83,254,191	13,538,970
Nails and spikes	2,461,241	3,071,547	610,306
Pipes and fittings	8,293,816	8,541,050	247,234
Safes	299,711	327,032	27,320
Scales and balances	732,971	947,538	214,567
Stoves and ranges	1,019,757	1,317,929	298,172
All other iron and steel goods	12,903,746	15,272,564	.....
Total iron and steel and manufacturers of	142,930,513	172,555,588	29,625,075

a Decrease. b Entered with "All other machinery" prior to 1906.

The exports of all products in 1906 show an increase, with the single exception of billets, blooms, and ingots, which show a decrease of $607,250. From the standpoint of advanced manufactures the exports of builders' hardware, saws and tools, and machines and machinery, $14,273,137 and $83,254,191, respectively, in 1906, are the most satisfactory and significant.

EXPANDING STEEL MARKET.

SCOTCH SHIPMENTS TO CALIFORNIA—STEEL STRUCTURES IN BRITAIN.

Consul Rufus Fleming makes a report from Edinburgh, saying that in Scotland, as elsewhere, the beginning of 1907 is marked by great activity in the steel industry, concerning which he writes:

Added to an increasing local demand for plates and other shipbuilding material, there are large requirements for foreign orders. Several firms in this part of Scotland have important contracts for San Francisco, which they undertook upon condition that the shipments were to be made within a reasonable time, at the convenience of the manufacturers. If quick delivery had been required, the orders could not have been accepted. It is only because of the cheap freight rate by water that Scottish producers can sell to San Francisco in competition with American makers. An ocean rate of $5.90 per ton enables the Scottish makers to place finished structural steel in San Francisco at a price but little, if any, above that of American steel delivered on the Pacific coast by rail.

The present price in Scotland of finished structural steel is about $58.40 per ton. The home market for structural steel is broadening. In a recent article in Consular and Trade Reports I noted a tendency in the building trade toward a more liberal use of steel in the construction of large business houses. This tendency has become very pronounced. The manager of important steel works informs me that he is now supplying the material for steel buildings in Glasgow and London, and he is confident that there will be a rapidly increasing number of steel structures in the future throughout the British Islands. This development can not but have a permanently stimulating effect upon the steel industry here and in other countries.

WIRE FENCING.

LARGE AND INCREASING QUANTITIES USED IN AUSTRALASIA.

Consul-General William A. Prickitt, of Auckland, reports in relation to the use of wire fencing in Australasia as follows:

As New Zealand has not been seriously troubled, except in a few places, by the rabbit pest, the greater part of the fence wire in use is galvanized barb wire. During the last five years woven wire has been having a limited sale. The Page fence, for example, is being exhibited at the county fairs all over the colony, and several agencies have been established. As far as I can ascertain, no machine for weaving wire for fence purposes is in use in New Zealand. In Sydney, New South Wales, there is one factory making woven wire fence, which is probably the only one at present in Australasia.

I am informed by a gentleman connected with a large hardware firm in Sydney, that the factory above named is crowded with orders, and that other firms would go into the business but are deterred from doing so on account of the scarcity of plain wire of the gage demanded. To exclude the rabbits the large sheep owners in New South Wales are fencing their sheep runs with woven wire 1¼-inch mesh, 42 inches wide, No. 17 gage.

There are now enough orders ahead for the wire netting described to last for four years unless there should be increased production. The

price has advanced 30 per cent and is now worth about $190 a mile. England and Germany are said to be getting the greater part of this trade. Business is excellent both in Australia and New Zealand, with wool nearly double the price of a few years ago; and, taking all the conditions into consideration, it would seem to be good business on the part of those in the United States interested in the woven wire fence industry to send competent men to Australasia to investigate the subject, and, if possible, to secure a share of the trade.

SILVER IN DEMAND.

IMMEDIATE MARKET IN NORTH MANCHURIA—BANKING OPPORTUNITY.

Consul Fred D. Fisher, of Harbin, forwards the translation of a memorandum, given him by a Mr. Yokish, regarding the supplying of silver to the Chinese banking establishments or exchanges in north Manchuria, concerning which he says:

I am unable to check the figures given in the memorandum, but see no particular reason to doubt that they are reasonably accurate. There is at this time a large demand among the Chinese here for silver. The country is overstocked with goods brought in from other parts which have drawn much of the medium out. While the Russian merchants' stocks have been acquired chiefly for demands of the Russian army, now mostly withdrawn, and other Russian trade here, the Chinese merchants, both in Harbin and outside, appear to have used better judgment in their selection, and they hold stocks that will probably move in time without much loss.

The Chinese exchanges here evidently believe that conditions are now favorable for supplying silver to the productive and commercial interests of north Manchuria at high rates. It is the practice here to make advances on security to agricultural and other interests in order that that they might conduct their business through certain seasons.

It appears to me that if an American banking institution should be able to supply this silver on terms that would give fair profits, it would be able to enter upon a general banking business here with good returns to itself, and at the same time greatly assist in the development of American trade. The Russo-Chinese Bank is the only institution of its kind here, and I believe that an American bank would receive support.

The Chinese banks here are anxious to conclude arrangements for the supply of the silver as soon as possible. Should a bank in the United States wish to investigate the matter, I suggest that the Harbin consulate be informed by cable, so that the Chinese might be notified, as they wish to look elsewhere in case no American bank desires to undertake to supply the silver. Following is the statement of Mr. Yokish:

GREAT MARKET FOR SILVER.

A party of Chinese has applied to me for information as to the possibility of arranging with some American or English banking house to supply silver for north Manchuria, and I therefore take the liberty of aquainting you with the particulars of that trade as given to me by these Chinese, as well as others of good reputation. There are two kinds of dollars, one minted at Kirin, the other at Mukden; also silver yambas, which are cast by the banking houses here. Silver is obtained or imported through London, Hamburg, and Shanghai to Harbin; the latter manner has been unsatisfactory.

Some years ago the Russo-Chinese Bank had the placing of all orders for silver for Manchuria, but the rate charged was very high. Later the Russian merchants, with the assistance of the Eastern Chinese Railway Company, entered into the business, but their methods have been also unsatisfactory, as they fail to make deliveries at any stated time, while they charge as high as 7 per cent for credit on their advances. It has been their practice to hold back deliveries for a more favorable rate whenever a shipment of silver arrives during a low market. Recently Te Fun Tai, a large Chinese house, closed its doors as the result of the loss of 200,000 rubles on account of these methods.

The two largest silver exchanges here have their head offices in Kirin and Kwanchengtze, and have numerous branches throughout north Manchuria. The total yearly transactions in silver by these exchanges, with their branches, amounts to not less than 1,500,000 poods (about 66,000,000 pounds troy), and the amount kept on hand amounts to 500,000 poods (about 22,000,000 pounds troy). The quotation at present (November 8, 1906) is 1.55 rubles (79.825 cents) per lan (about 1.10 ounces troy). One pood equals 480 lans, and at this rate the value of a pood (43.86875 pounds, troy or 36.112 pounds avoirdupois) of silver would be 744 rubles ($383.16). The total value of these yearly transactions, therefore, is 700,000,000 rubles ($360,500,000) in the minimum, while the value of the silver kept on hand is 350,000,000 rubles ($180,250,000).

It is the desire of a number of Chinese firms, besides those that have applied to me, to invite foreign capitalists to undertake the importation of the silver, or to establish a banking agency or other institution to undertake this operation and do business under the following conditions: A guaranty should be given to deliver the silver on a certain date within a period of from two weeks to two months after the placing of an order, at a price according to the quotations at a certain time, so that neither party would have to depend upon future quotations. All orders will be guaranteed. A certain responsible firm here is willing to undertake to secure all the orders from the outlying points. Deliveries to be made at Harbin, Kirin, and Kwanchengtze. The main thing is to get authentic quotations by telegraph as often as possible. The opinion of the Chinese is that it would probably be best to deal with San Francisco direct, deliveries to be made within two months.

At this time one firm in Kirin alone requires about 6,000 poods (263,000 pounds troy) of silver, or over 4,000,000 rubles' ($2,060,000) worth at present quotations, and 10 car loads are now needed to meet the present requirements.

BLAST-FURNACE SLAG.

MARBLE AND STONE MADE FROM WASTE MATERIAL.

The idea of producing by artificial means the various descriptions of stone used in building has long been the dream of the inventor, and the problem has in the past been approached from many different directions. From an article in the London Times on the new use for blast-furnace slag, the following is taken:

Under processes recently patented a remarkable step in advance in the manufacture of stone-like substances has been achieved. The inventor has succeeded in what is little short of a reconstruction of many well-known qualities of building stone. By a slight modification of his processes he produces all kinds of marble, and one of his chief successes has been in the manufacture of lithographic stone, which has been pronounced by experts to surpass some of the best samples of the natural material.

In using slag for the production of an artifical stone it is broken up in a stone breaker with crushing jaws of the usual type, and is ground to a powder in a disintegrator. The powdered slag is then mixed with quicklime, seven parts of slag being used to one of lime, and the substances are thoroughly amalgamated in a revolving mixer and subsequently "pugged" with an excess of water to form a pasty mass of creamy consistency. This is subjected to very heavy pressure in metal molds, squeezing out nearly all the water, and formed into blocks of

the consistency of chalk or stiff marl. After the blocks are quite dry they are placed in stout iron cylinders from which the air is exhausted, and when a complete vacuum is obtained carbonic acid gas is introduced and is allowed to permeate the stone for a period of three days. By this treatment the hydrate of lime becomes recarbonated and serves to bind the mass into a substance as hard as rock.

ARTIFICIAL MARBLE—EXTRACTING IRON FROM SLAG.

If for the slag a basis of marble, limestone, or dolomite is substituted it becomes possible to prepare a mixture, as heretofore described, in which from three-fourths to seven-eighths consists of calcium hydrate, or a mixture of calcium and magnesium hydrates, obtained by calcining the stone. These blocks can readily be impregnated with the carbonic acid gas, by which means the lime and magnesium are converted into carbonates and serve to consolidate the mass and turn the whole substance into stone. In the case of marbles, or when making lithographic stone, a certain amount of coloring matter can be added to the paste. The finished stone or marble is capable of a high polish, and is said to possess all the weather-resisting properties of the natural rock used in its production.

A plant is now working at the Barrow Steel Works, says the London Commercial-Intelligence, for the extraction of iron from the accretion of slag. The process adopted is a magnetic one, the slag being first pulverized and then submitted to the influence of very powerful magnets. The system adopted has passed the experimental stage, and it is stated to be a commercial success.

Possible Substitution of Iron for Brass Pins.

Consul Albert Halstead, in making the statement that pin making is an important Birmingham industry, and Birmingham pins are sold all over the world, adds:

I am informed that if the price of copper continues to advance, pin makers may be forced to make a large proportion of their pins of iron instead of brass. So many kinds of pins are put up in packages of various styles that have for years been sold at the same price that they can not, without serious loss of trade—so I am informed by large manufacturers of these articles—advance the prices of such so-called proprietary articles.

MACHINERY AND METALS.

TRADE IN MECHANICAL EQUIPMENT.

SOUTH AFRICA.

MARKET FOR MINING MACHINERY—METHODS FOR EFFECTING SALES.

A report from Special Agent Raymond F. Crist, written from Cape Town, contains information about the sale and use of mining machinery that should prove valuable to American manufacturers and exporters of that class of supplies. The report follows:

The sale of mining equipment in the Johannesburg market affords a good field for the expansion of American trade along certain lines, yet the greatest amount of study and caution are imperative to intelligently enter into this competition. In certain commodities, and with a large number of the mining groups, no sales by American manufacturers can be looked for, while in others a fair share is being obtained and a still larger portion can be won by properly applied effort and energy.

In the outset it might as well be fully understood that in the supplying of the many varieties of electrical and mechanical mining machinery and other equipment, the annual sales of which are upward of thirty-five millions of dollars, no results whatever can be looked for from the distribution of catalogues. British and Continental makers, of practically every line of mining equipment that it is possible to sell, have representatives in the Rand. American houses also have a fair representation either by trained personal representatives or through agents. Competition is therefore exceedingly keen and sharp; and literature, no matter how attractive, stands no chance of making any impresssion upon the mining engineer contemplating extensive installation when opposed to live, wide-awake salesmen.

BRITISH AND GERMAN MACHINERY.

By far the largest percentage of contracts for installing machinery and equipment falls to British manufacturers. This is but natural, in view of the strong influence of British capital invested, presence of Englishmen in predominating numbers on the operating and consulting staffs of the mines, and the political allegiance of these colonies. The purchase of mining machinery of various kinds is made through certain defined channels. The Witwatersrand mining is divided into groups, and each group of mines represents certain capitalists or backers composed of stockholders, comprising various banking and industrial concerns of England and the Continent, which manufacture in large part mining and other machinery. These mines buy their equipment through importing houses of Johannesburg, who in turn forward the orders through their English or Continental branches, as circumstances may dictate, to the manufacturers of whose goods they have exclusive control in South Africa.

The method pursued in the sale of German mining equipment, both electrical and mechanical, is best illustrative of the system under which the bulk of this trade is carried on. An important firm of German machine manufacturers has given the exclusive agency for the sale of their manufactures to a Johannesburg importing house, composed of stockholders of one of the largest mining groups in the Rand. Considerable stock of this group is held by Germans, who are also financially interested in the Dresdner Bank, an important industrial bank of Germany, as well as in the manufacture of mining machinery. With this combination of interests at work there are certain lines of machinery which this manufactory can invariably count on supplying to this market irrespective of prices quoted by American or other manufacturers. In fact, so well is this arrangement understood that English and American manufacturers who have long been established in this field, do not look for business in those lines or with other groups which are thus controlled or allotted.

The method followed by Germans is pursued by English manufacturers, whose relations to the different mining groups and financial institutions are parallel to that of the German in most respects. This system applies in the sale of the bulk of the supplies for the mines, and in the old-established mines there would appear to be no great opportunity for the entrance of American manufacturers, save at great expenditure of time, money, and personal effort on the ground. Large quantities of American mining machines have been sold in the past, and sales will undoubtedly continue, but these will only be made by those who have personal representatives here, and in the main by those long represented in this market.

SUPERIORITY OF AMERICAN TOOLS.

American manufacturers must also reckon upon a change in conditions which has taken place within recent years. Whereas during the early days of mining on the Witwatersrand there was a predominance of American mining engineers and managers of mines, these have given place in large numbers to Englishmen, some of whom have received their training in American mines. With this array of influences, all sympathizing with the promotion of British trade, it is evident that no half-hearted efforts on the part of American manufacturers will result in effecting sales.

In certain lines, such as rock drills and rock breakers, etc., American makes have almost a monopoly, due to the high standard of excellence maintained in their manufacture, and to their suitability for the prevailing conditions. This last has partly been achieved by sending out expert representatives to study the peculiarities of the mining industry of the Rand, partly by their readiness in making modifications suggested by mining engineers, and partly because the articles were just what was needed. American manufacturers have not been alone in this intelligent endeavor to effect sales in this field, and are probably far distanced in this respect by German enterprise.

It is by catering to the peculiarities of this market that the Germans have made their great progress in supplying large quantities of various apparatus.

Instances have been brought to my notice where efforts on the part of American engineers who have endeavored to throw orders to American manufacturers have met with failure on part of the manufacturer to cooperate and meet the requirements, resulting in future orders

being placed with German makers. Three important causes leading to this action are cited:

LOCAL REQUIREMENTS IGNORED.

(1) Ignoring details of specifications in contracts, and making alterations without consulting those furnishing the specifications, and without notifying them thereof.

(2) Failure to accept suggestions from those experienced in the details of successful operation of apparatus on the Rand mines.

(3) Repeated failure to make deliveries within the time promised.

Repeated instances have been cited in support of the first of those reasons. One case spoken of related to filling a contract to supply an engine and boiler in which several alterations deemed by the manufacturer advisable resulted in expense and loss of time to change. Another referred to the alteration of switchboards in an electrical installation.

In regard to the second cause several cases have also been spoken of. One instance cited had reference to supplying hoists with electric controllers. Similar electric hoists had been furnished by a leading German electrical apparatus manufacturing house and had given particular satisfaction. An American manufacturer, however, succeeded in obtaining the award of a contract to supply a hoist and controller about July, 1905. In order to offer every advantage to this concern, and as this order promised to be one of a very large business to follow, the manufacturer was informed of the successful operation of the German apparatus, and particular emphasis laid upon the satisfaction given by the controller. Incidentally it was suggested that the manufacturer might obtain available information relating to the construction of this apparatus from the German makers. This disinterestedness brought forth the courteous response that it was unnecessary to acquire special knowledge of German electrical construction, as the American house was well acquainted with all phases of advancement in that science.

The finale of this case brings me to the third cause assigned as working against an increase of American business in this field, namely, failure to deliver goods within the time promised. This apparatus was promised for delivery during January, 1906, and shortly prior to its expiration word was sent that difficulties had arisen which would necessitate a delay. Similar excuses continued until July, when it was reported that the controller constructed had proven a failure, but that orders had been placed with the German house, to which reference has been made, to ship their controllers at first opportunity. By this time it had become imperative to have the necessary controllers, and the American electrical engineer, who had proffered the advice, obtained drawings and had one constructed pending the arrival of the German product.

DELAYS IN SHIPMENTS.

Delays of three months appear to be not uncommon, and when it is considered that orders for machinery generally represent portions only of large installations it at once becomes apparent how imperative it is to secure prompt delivery within the time promised. Some American manufacturers appear exceedingly anxious to obtain contracts for foreign work and willing to promise certain delivery, and to feel that it is of no consequence to the intending purchaser, whether delays occur of from one to six months in delivery. Untold and

incalculable loss may result to a mining or other industrial enterprise through such delays, and the only recourse open is to decline to accept furthertenders.

A case brought to my notice of extension of mining plant showed a delay of three months in operation by reason of failure on the part of certain American manufacturers to deliver their portion of the equipment in the time agreed upon. This extension when finally placed in operation effected an increase of upwards of $70,000 a month in the earnings of the mine. Losses of this character, while probably only reacting directly upon the manufacturing house concerned, are used to discredit American manufacturers generally, and in this they are far-reaching. All arguments possible of advancement are continually being used to stimulate the purchase only of goods from the United Kingdom or the British colonies, and such conditions as those recited are eagerly made use of.

GERMAN METHODS TO SECURE BUSINESS.

One instance will serve to illustrate how willing German manufacturers are to adapt their manufactures to suit existing conditions on the Rand, and at the same time obtain a stronger hold upon the business of supplying its needs. It is often advantageous to use electric motors interchangeable upon currents of high and low voltages, and the case in point had reference to three-phase induction motors which, by a rearrangement of winding, would admit of this. The alteration was readily made by both American and German makers at an advance charge of about $2.50 by the American manufacturers, while no additional charge was made by the German house. This matter is quite small in itself, but indicates that German competitors are alive to everything that will induce a greater sale of their products.

As a general proposition, American manufacturers have the reputation among Englishmen and Germans of being quick to avail themselves of any improvement or alteration suggested that will clearly increase the efficiency of their products. Among Americans this idea prevails with regard to German manufacturers, while the British manufacturer is spoken of as being bound to his old ideas. Whether this be a fallacy all around, it is difficult to say; but if increasing sales of British manufactures in this market upon an already overwhelming predominance of those articles point to a conclusion, the British manufacturer would appear to be safe in standing by his conservatism in the majortiy of instances, inasmuch as he is the largest manufacturer of goods for the foreign trade of the world, and has been for years the supplier of the greatest portion of that vast total.

VALUE OF PERSONAL REPRESENTATIVES.

With regard to the general import business, some enterprising American houses having a desire to establish a foreign market for their output have sent representatives to South Africa. These salesmen have passed through the various colonies, met with favorable reception, in many instances made satisfactory sales, and upon their return to America gave glowing results of great expectations. These have not been followed with the looked-for orders, and dissatisfaction and an abandonment of the market may be placed as the net result of their enterprise. The cause of this failure is not in the South African field, but is due to the purely transitory character of the work. If a house contemplates a venture into this market it should be made with a

determination to identify itself with the trading public and with a purpose to remain permanently.

Profitable results can hardly be expected much short of a year and a half or two years, but by careful and persistent effort success should be achieved from that time. It is necessary to continue representation, either directly or through an agent, in order to insure continuance of a remunerative business. That this is perfectly feasible is supported by the history of South African trade. All of those who are established in that trade, whether American, British, or Continental houses, have attained their present position through representation in person upon the ground, and not by means of correspondence and catalogues. These are excellent aids to the personal representative in supplementing his work, or in stimulating sales of goods to the consumer after they have been placed with the merchants, and the same may be said of all other judicious advertising, but they must be preceded by the personal representative.

TURKEY.

SALE OF AMERICAN SAFES.

Consul E. L. Harris reports that the importation of safes into that part of Asia Minor is very limited, not more than 350 to 400 being imported during the course of a year, and then generally of the cheapest make. He says:

Germany and Austria practically control the trade, for the reason that they send out safes which are cheap and have the appearance of great solidity, although in reality they are not well constructed. A few cheap American safes have been imported, and a great many more would probably find a ready sale if closer attention were paid to the conditions of this market. A great item which operates against the American safe, however, is the heavy freight charged from the United States to the Levant, as compared with the freight rate ruling from Austria and Germany. A few safes of high class are imported from England every year.

The strict examination made by the customs authorities during the past few years has perhaps done more to foster the importation of cheap safes than any other cause, for up to within the last two years the fireproof packing of all safes imported had to be opened to ascertain that no prohibited articles were concealed therein. Makers of high-class safes were therefore averse to consigning goods to Turkey, where, in the absence of skilled experts in safe building, their wares were liable to become seriously damaged during the customs examination. A recent law permits the entry of safes of well-known makers without such strict examination, provided the makers give a written declaration with each safe that the walls contain nothing else than the usual fireproof packing.

MEXICO.

THE KINDS NEEDED IN MANZANILLO—SUGGESTIONS FOR EXPORTERS.

Vice-Consul R. M. Stadden reports that agricultural and sugar machinery, rice hullers and cleaners, boilers, engines, sawmills, electric plants, ice machines, oil-extracting and soap-making machinery, etc., are needed in the Manzanillo, Mexico, district. He says:

Many catalogues and much advertising matter are sent here by firms of the United States, the greater part of which are not printed

in the Spanish language, and therefore fail to do any good. If printed in Spanish they fail to give the necessary information. The prices are mostly for goods f. o. b. cars at some interior point in the United States, the cost of transportation to New York, San Francisco, or other points of shipments being omitted. Purchasers here have ordered goods according to catalogue price f. o. b. New York, but when they paid their bills they were obliged to pay, in addition to the stated price, the cartage, commission merchants' shipping charges, and cost of consular invoice. The result was dissatisfaction, and it would be difficult to get them to order again from advertising matter.

Another fault with many catalogues is that gross shipping weight or cubic feet are not stated. This is very necessary to enable the purchaser to calculate what the freight charges will amount to. A person here ordered a windmill and tower from a catalogue, which gave price and stated that this size of mill would furnish sufficient water for a certain number of cattle from a well of a certain depth. When the goods arrived the pump and pipe were missing. Many people here desire to purchase windmills, but for lack of someone to set them up, and to give the cost of the mills in operation, they continue to draw water from wells by hand.

A large trade could be built up if the manufacturers of the United States would establish an agency in the district. A person should be put in charge who can speak the Spanish language and who could install machinery. The agent could then make contracts to furnish and put the machinery in operation for a fixed price; money for full payment to be deposited in a bank, to be paid the agent when he has completed his contract.

AUSTRIA-HUNGARY.

AMERICAN IMPLEMENTS IN BOHEMIA.

Consul S. C. McFarland, of Reichenberg, reports that small American tools and specialties are now to be found in almost every hardware shop in northern Bohemia; but that larger implements, such as mowers, cultivators, plows, etc., are purchased either through agents, or direct from factories in Bohemia, or in Germany, or from distributing houses or agencies in Vienna or Prague. He continues:

There are literally no "dealers" in such goods. The same is true of wagons and vehicles. The large Austrian and German manufacturers maintain agents, local and traveling; and to succeed here, Americans must copy their methods. This is at present done by a number of American concerns, one of which does an enormous business throughout the Continent, maintaining agents everywhere, observing local trade customs, exhibiting at fairs, advertising in local mediums, etc. Just in this region, except a few large estates, the farming country is divided into the small holdings of peasants of the different classes, who follow the most primitive methods. Field labor is largely done by women and children, and is so cheap that, even if able, these peasants would not purchase machinery. Grain is chiefly thrashed by women with flails.

Presuming that American firms desiring to cater to this trade have their letters, advertising, price lists, etc., prepared in Germany, they could hardly do better at first in this section than to present propositions to an association of Bohemian farmers, resembling closely an American grange, which purchases wholesale for members such

machinery, implements, etc., as they may require. [The name of this farmers' cooperative society and names of farm-machinery importers of Bohemia are filed at the Bureau of Manufacturers for the use of American producers of such lines.]

RUSSIA.

GOOD OPPORTUNITY FOR LAUNDRY MACHINERY SALES.

Consul Thomas E. Heenan furnishes the following particulars with regard to the laundry business at Odessa:

From what this office could gather in Odessa there does not seem to be any difficulty in indorsing the assertion that American-made laundry machinery is the best. Manual labor here is becoming annually dearer, and apart from the higher cost, is stated to be less and less efficient, so that it would appear that there is an immense and growing field in Russia for laundry machinery, yet against the introduction of it militates the great difficulty in obtaining the skilled operators for the machinery, and—particularly in the provinces—the scarcity of competent mechanics able to keep it in repair.

As practically all the population in this district is white, only white labor is employed in the laundries, and most of the washing is done by hand and without the aid of machinery of any kind, but chemicals are often resorted to.

[A list of the five Odessa laundries using machinery and the dealers in laundry machinery are filed at the Bureau of Manufactures.]

GOVERNMENT PURCHASE OF FARM IMPLEMENTS.

Consul-General Hugh Pitcairn, of Hamburg, reports a notice in a local paper to the effect that the Russian Government has passed a bill providing for the purchase of a million rubles worth of agricultural machinery and implements. Mr. Pitcairn says that the movement will afford an opportunity for an increase in business for American manufacturers of agricultural machinery and implements, already so extensively introduced, in Russia. The imports of agricultural machinery into Russia have of late increased, particularly those of mowers, reapers, plows, cultivators, seeders, harvesters, and binders.

JAPAN.

IMPORTATION OF SAWS.

E. G. Babbitt, vice-consul-general, writing from Yokohama, says that it is impossible to get accurate figures of the number of saws imported into Japan, as they enter under the classification "Tools of farmers and mechanics," of which there were imported in 1905, $288,487 worth, and for the first ten months of 1906, $418,912 worth. The duty on these goods is 15 per cent ad valorem. While it is impossible to arrive at what proportion of the total represents the various kinds of saws, it is interesting to note the steady increase of importations from the United States, viz, $103,709 in 1905, against $43,388 in 1903. The Japanese are becoming better acquainted with the uses and qualities of American tools, which differ materially from the native tools, and are gradually adopting such as are best brought to their attention by practical exhibit and advertising. German tools increased from $4,942 in 1903 to $13,430 in 1905; and Great Britain's increased from $74,962 worth in 1903 to $167,599 in 1905.

TEXTILE MANUFACTURES.

(See note on Cottons under Contents on page 2.)

ITALIAN LACE INDUSTRY.

HANDIWORK OF PEASANTS—WAGES AND HOURS OF LABOR.

Consul James E. Dunning, of Milan, furnishes an interesting report on the manufacture of Cantu lace by the peasants of that district. He writes:

Cantu laces are not made in factories, but in the homes of the peasants of the district. The "manufacturer" ("fabbricanti") is the "padrone" who supplies the peasant workers with linen yarn, the tools of the trade, and the designs on which the laces are woven. Many of these "manufacturers" have been in business for long periods of time, and at least one firm at Cantu has been in the trade for over eighty years, always in the same family. There is but one manufacturer at Cantu with anything like a modern equipment; the others being contented to keep a set of books and a room for the storage of yarn in skeins and for the patterns attached to the family residence.

PRIMITIVE METHODS.

With the single exception just noted, everything in the trade is done in the most primitive way, and the only connection between the manufacturer and the outside world is the buyer and shipper from Milan, Paris, London, or New York, who comes to Cantu to place his orders. He sees the manufacturer, or middleman, who takes the order for a certain lot of a certain design, and farms out the patterns and wooden needles and cloth drums and linen yarn required by the contract to the peasants who happen to be in his service at the time. Such portions of the order as he can not find already in his accumulated stock he thus has made for him, finding labor plentiful and cheap in winter and in summer scarce and high. Thus, the charge of cost of labor in the schedule of expenses attaching to the manufacture of handmade lace at Cantu is a very fluctuating quantity. Everything depends on special conditions—the importance of the middleman, his resources, his standing among the peasants, the nature of the patterns to be executed, the weight of the linen yarn to be used in the fabrication, the weight and texture of the linen centers for the doilies and table covers and bedspreads, and the season of the year.

WAGES PAID WORKERS.

The cost of labor varies with the season and the amount of work on hand. Women and girls of all ages are engaged in the trade, most of them enrolled on the books of some one of the middlemen, for whom they take work intermittently, as their home duties and the seasons allow. Young children beginning to learn the trade are paid about 10 cents a day. Girls of some experience receive from 20 to 30 cents,

and trained women of the first class, 40 cents. Wages are settled daily. The women bring what they have done to the manufacturer and leave it with him over night, returning for it in the morning, and beginning again where they left off the evening before. Danger from fire and from having the yarn stained in the weaving dictate this policy. The worker's rate is established on her skill and the quality of the lace which can be intrusted to her fingers. She is not allowed to work after lamplight, that practice having proved dangerous to correct weaving. This, again, renders impossible any great volume of work in the winter season, when, from November to April, daylight does not come strong before 8.30 in the morning and is gone before 4 in the afternoon.

The consulate has been unable to determine with exactitude the number of peasants employed in the making of Cantu lace, the total having been variously estimated by sundry experienced persons at from 2,500 to 8,000, taking the maximum summer condition of things as a basis. From all sources of information, however, the consulate concludes that not less than 7,000 persons are employed in the industry in and about Cantu. Nearly every female peasant resident of the district is so engaged. There are about a dozen important manufacturers, or middlemen, and scores of others, generally elderly women who have accumulated a small property, who keep from 30 to 60 women employed upon the cheaper grades.

LIFELONG STUDY AND PRACTICE.

The Cantu women have made the making of lace a lifelong study, and vain efforts have been made to imitate their accomplishments in Milan and elsewhere. In Milan, for example, an important shipper of such goods set apart a portion of his factory and hired numbers of women and girls to work at low wages and under the instruction of as many Cantu experts as he could induce to leave their homes. He found it totally impossible, however, to produce Cantu laces, the knack evidently being bred into the fingers of the natives of the district, who work with amazing rapidity and skill.

The coveted position among the lace workers is that of expert finisher—the woman who, in the house of the padrone, takes the lace worked by the peasants and prepares it for market. When it is brought in from outside, the lace is in the rough—disconnected sections and loose ends. The finisher, a daughter of the middleman's family, if he has one available, takes these loose pieces and stitches them together with such extraordinary skill that when the piece is completed, with its linen center laundered and inserted, it appears to be a single work from one pair of hands. This finishing process costs very little. The woman who does it, if she is hired from outside the house, gets no more than 2 francs, or 40 cents per day, and probably does the family housework as well. In most cases the finishing is done by the women of the manufacturer's family at no money expense whatever.

VARIOUS GRADES AND STYLES.

In summer the period of day labor at Cantu is ten hours. A good worker of average speed makes about 10.16 inches of fine Point Venise work 2.36 inches wide in one day's labor. This Point Venise (Venetian Point) is the second grade of Cantu lace, Brussels being first. Cantu makes nearly all the laces sold in the Venice shops, and

all the local manufacturers sell heavy orders to Venetian dealers, who carry the goods at a price very much above the Cantu price. Byzantine is a cheaper grade, and a lesser quality is Antique, which goes together very rapidly and does not demand either a fine grade of yarn or an experienced worker in its fabrication. There are many variations on these styles, with sundry local names; but Venetian, and Byzantine, and a few examples of "Cordulo" (a lace made of an outline of heavy cord on which the design is built up) are the only qualities in which the American trade is much concerned.

The best linen thread from which Cantu laces are made comes from Belgium, while France sends an extra good quality. During 1905 Italy imported a trifle over 7,500 quintals (quintal=220.46 pounds) of unbleached yarn and 31,000 quintals of bleached thread. Italy itself manufactures certain grades, rather indifferent, at points on the Lake of Garda near Brescia, and Cantu takes a certain portion of this native output for Antique and other lesser qualities of laces. But most of the laces entering the United States from Milan are fabricated of Belgium linen yarn.

The best grade of linen yarn (or thread) used at Cantu costs in the neighborhood of 33 cents per pound (number 40 thread), to which should be added 2 cents per pound for import duty

WOOLEN TRADE.

GERMANY.

HOME PRODUCT DECREASING—IMPORTS AND EXPORTS.

Consul-General A. M. Thackara, writing from Berlin, in reply to an inquiry of the National Association of Wool Manufacturers concerning the wool statistics of the German Empire, says:

I have not been able to obtain all the statistics requested, as I am informed they are not published. From the "Statistisches Jahrbuch für das Deutsche Reich" for 1906, a book of statistics issued by the Imperial authorities, and from other reliable sources, I have prepared the following tables:

German wool imports from 1901 to 1905 inclusive, in tons of 2,204.6 pounds.

Character.	1901.	1902.	1903.	1904.	1905.
Sheep's wool:	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*
Raw	150,171	161,804	166,340	158,963	165,152
Carded	11,673	19,340	19,079	20,134	18,770
Combings	1,749	2,124	2,016	1,657	1,848
Artificial wool and wool waste	9,725	11,134	13,654	14,349	14,907
Wool yarn	20,328	22,593	24,156	21,750	21,038

German wool exports from 1901 to 1905, in metric tons.

Character.	1901.	1902.	1903.	1904.	1905.
Sheep's wool:	*Tons*	*Tons*	*Tons*	*Tons*	*Tons*
Raw	9,786	11,439	11,303	10,359	10,847
Carded	6,457	6,833	6,604	7,251	7,399
Combings	3,017	3,104	3,173	3,019	2,857
Artificial wool and wool waste	16,333	15,796	16,639	16,745	17,122
Wool yarn	10,415	10,886	10,294	11,196	10,404

Germany's exports of wool manufactures for the years 1902 to 1905, inclusive.

Character.	1902.		1903.		1904.		1905.	
	Weight.	Value.	Weight.	Value.	Weight.	Value.	Weight.	Value.
	Tons.	*1,000 marks.*	*Tons.*	*1,000 marks.*	*Tons.*	*1,000 marks.*	*Tons.*	*1,000 marks.*
Felt	1,596	6,384	1,655	6,619	1,772	7,088	1,923	8,173
Woolen rugs	1,409	5,916	1,545	6,953	1,493	6,720	1,683	8,079
Plush goods	769	5,844	858	6,866	834	6,670	1,026	9,032
Passementerie and button ware	1,094	14,766	1,012	14,165	1,107	15,499	928	13,385
Lace, tulle, and embroidery	67	1,236	93	1,724	107	1,976	175	4,383
Stockings	2,796	22,928	2,803	23,822	2,789	25,100	3,088	28,716
Cloth and dress goods, printed	1,069	9,622	1,369	12,724	1,388	12,710	1,403	14,028
Same, not printed	22,596	159,369	23,255	170,347	24,285	172,674	24,644	206,471
Yarn	10,886	62,460	10,294	59,113	11,196	65,782	10,404	63,512

NOTE.—Mark = 23.8 cents.

DECREASE IN ANNUAL CLIP.

The production of wool in the German Empire is decreasing annually. In 1861 the number of sheep, in round numbers, was 28,000,000, while in 1900, the last year for which statistics are available, it had fallen to 9,692,500.

There are no official statistics of the annual wool production, but based upon a weight of 4 pounds of wool per sheep and 1½ pounds per lamb, the production in 1892 was 49,824,460 pounds; in 1897, 39,683,200 pounds; and in 1900, 36,376,270 pounds.

Sheep breeding is principally carried on in Prussia, while Bavaria comes next in importance, and is followed by Mecklenburg, Wurttemberg, Brunswick, and Oldenburg. The enormous quantity of wool used in manufacturing in addition to the home supply comes from the Argentine Republic, Austria, Great Britain, British South Africa, Belgium, France, etc. Carded wool and woolen yarn are also imported from Great Britain, Belgium, and France.

CHINA.

GROWING DEMAND REPORTED IN ENGLAND FROM ORIENTAL MARKETS.

The following article, taken from a Leeds, England, newspaper concerning the alleged boom in the Chinese demand for woolens, is sent by Consul Walter C. Hamm, of Hull:

There is much in the present state of the woolen trade of the West Riding pointing to a boom. A notable feature of the industry for some months past has been the extraordinary demands of China, while those of Japan have likewise been encouraging. It is nothing new, however, for Japan to place large orders for cloth and also for blankets in the West Riding. During the late war immense quantities of such goods required by the army were produced in the heavy woolen district.

As to the present Chinese requirements, they are so extensive that it can only be assumed that China, following in the wake of her progressive neighbor, is about to adopt, to some extent at least, the western style of dress with the other reforms which are being carried out. This would certainly seem to be the case in relation to the army, for some of the largest orders are for army cloth similar to that which the Japanese obtained, viz, a plain-dyed heavy woolen. The rest mainly comprise cotton-warp meltons and vicunas in black and blue and plain worsted serges of a coarse quality. Advices to hand during the last

few days state that further large orders from the Far East are about to be placed. So far only the fringe of this trade has been touched, and if China is really adopting the western style of dress it means that a market of enormous proportions will be opened up.

SILK CONDITIONING.

COMPARATIVE PRODUCTIONS FOR THE PAST TWO YEARS.

The following return of the silk conditioned at European silk centers during the year 1906, compared with the year 1905, is published by the Bollettino di Sericoltura of Milan:

Silk centers.	Organzine.[a]		Tram.[b]		Raw.		Other.	
	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
	Kilos.[c]	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*	*Kilos.*
Milan	1,209,060	1,469,900	1,528,375	1,550,450	6,212,875	6,831,145	398,845	296,865
Lyons	966,129	886,419	1,186,241	1,081,643	4,787,115	5,071,921	53,926	66,156
Zurich	546,724	525,419	587,573	627,848	384,310	391,933	.....	.....
Crefeld	233,435	229,752	197,702	195,797	34,705	95,289	6,677	15,422
Basel	235,920	283,449	161,449	187,966	148,908	141,101	834	279
Turin	283,907	261,330	38,983	21,971	273,643	300,815	7,710	41,960
Elberfeld	296,867	309,002	151,782	173,983	167,102	172,449	489	.....

[a] Organzine=warp threads. [b] Tram=woof or weft threads. [c] Kilogram=2¼ pounds.

Austrian Cotton Manufacturing.

The development of the cotton spinning and weaving industry in Austria-Hungary has led to the extension of many of the existing mills and the establishment of new concerns. It is estimated by the London Financial Times that an increase of at least 400,000 cotton spindles will be effected in the dual Monarchy during the present year at an expenditure of $6,473,000. The erection of new mills specially applies to Hungary, where the promotion of industry is facilitated by the Government. A scheme is proposed for the establishment, near Budapest, of a mill for Egyptian yarn with 600 looms, 100,000 spindles, and a cotton goods printing plant. A cotton firm at Vienna is erecting a second spinning mill for 100,000 spindles, and a Bohemian firm is to build a large mill at Pressburg. It is estimated that the number of cotton spindles in Austria-Hungary at the present time is 3,150,000. The makers of cotton-working machinery have orders that will occupy the whole of this year to complete.

Russia's Jute Industries.

According to a report furnished by Consul-General Richard Guenther, of Frankfort, Germany, there are 11 factories working up jute in Russia, chiefly employed in making bags for flour mills, sugar factories, and similar lines. The annual production of jute bags is estimated at about 62,000,000 pieces, which is far short of the demand. The Russian sugar producers and others have petitioned the Russian Ministry of Commerce to allow the importation free of duty of 5,000,000 jute bags which are urgently required for the shipment of Russian grain and sugar to foreign countries. The labor strikes and disturbances in Russia have impeded the production of jute manufactures and prevented the mills from laying in stock of raw material when it was cheap, and in consequence they have now to pay advanced prices for it.

LEATHER TRADE.

FOREIGN FOOTWEAR MARKETS.

SWITZERLAND.

MANUFACTURING METHODS AND ADAPTATION OF AMERICAN MODELS.

The following report, concerning the shoe industry of Switzerland, is from Special Agent Arthur B. Butman:

There are 30 factories in Switzerland turning out machine-made shoes, situated chiefly in the northeastern or German-Swiss cantons. Hand-sewn work is produced in small shops throughout the country generally, and the wooden product is manufactured in the cantons of Alarus and Lugano. Of these latter, 40,000 pairs are annually sold in the country. The wooden-shoe industry is carried on during the winter months only, as in summer the peasants, who make the shoes, are engaged with their flocks and herds in the mountain pastures. A shoe fashioned of wood, with leather strap across the instep, retails at 1.25 francs (24 cents); a like product, hobnailed, retails at 1.75 francs (34 cents). Wooden shoes, with leather tops and felt linings, are also among the output. In Canton Tessin a wooden shoe with military heel is manufactured and largely worn by the native peasantry. This style of shoe sells for 1.75 francs (34 cents), or if so cut that a knot in the wood forms the heel or a portion of the same, thereby giving a more serviceable wearing quality, the price is 2.50 francs (49 cents).

In machine work the annual production is said to reach about 7,500,000 pairs, the average output of the factories being from 300 to 400 pairs per day each. The factory with the largest output in Switzerland is in Schönenberg. In fact this factory is the largest on the continent of Europe, its daily output averaging 9,500 pairs of shoes, and it employs 3,800 persons.

LABOR AND STYLE OF PRODUCT.

The work of Swiss factories is not specialized, as in the United States, and one may find shoes for women, men, and children, also slippers, manufactured under the same roof. These likewise may consist of Goodyear welt, Blake sewn (McKay), peg and nail products. The Swiss factories are largely equipped with modern American shoe-making machinery, and American leathers are more or less employed in manufacture. In spite of this the Swiss, as compared with the American product, is very inferior in both style and finish, as all labor here is practically unskilled. Women do the work of buffing, scouring, and finishing, as well as stitching and pulling over, and often accomplish far more work than the male workman.

Shoes of all grades are manufactured, the retail prices being from 7.50 to 12.50 francs ($1.45 to $2.31) for the more ordinary kinds, while for the best grade Goodyear welt shoes the retail price

is 22.51 francs ($4.34). A laborer's hobnail shoe is sold at from 5 to 10 francs ($0.96 to $1.93). Box calf is a favored leather for better grades, and woolen lined products for winter wear of this leather, men's and women's, cost from 16 to 20 francs ($3 to $3.86). Top boots are sold for 19 francs ($3.67). Wax splits are used in the manufacture of the cheaper grades. Tan or colored leathers are not in favor at present.

The characteristic Swiss shoe is short, with broad ball and stub toe, sharply pointed, nonflexible, uncomfortable, and awkward in appearance. American forms are being introduced, but the present Swiss adaptation of the American form produces rather unsatisfactory results, being fashioned so narrow across the ball that a disproportionate height of instep is necessary; consequently after a little wear, the vamp broadens beyond the sole in an unsightly manner.

AMERICAN MACHINERY--EXPORT TRADE.

For one factory here, recently enlarged and refitted with American shoemaking machinery, a line of genuine American lasts and patterns have been ordered from a firm in the United States, and "Americain shoes" (so-called) will in future be manufactured in this factory, together with the characteristic Swiss product. No half sizes are manufactured, and French measurements, according to table forwarded in a previous report—Shoes in Europe—and printed in Daily Consular and Trade Reports, No. 2744, are exclusively used throughout Switzerland.

The hours of labor are from ten to twelve, varying in different parts of the country. The factory workman is required during the summer season to begin his labor at 4.30 or 5 a. m. This early hour is demanded in order that the fresh energies of the workers may be obtained by the employer, as nearly all artisans are engaged to a greater or less degree in agriculture for personal benefit. During the winter season work in factories commences at 6 o'clock; fifteen and twenty minute rests are allowed at 9 and 4 o'clock, respectively, when refreshments of beer and bread are taken. From one to one and one half hours are allowed for dinner.

The principal food of Swiss shoemakers consists of bologna, bread, and cheese, with beer; meat is seldom eaten unless on feast days; soups are served on Sundays.

The total value of exportation of leathers and shoe goods from Switzerland during the year 1905 was $1,752,960, the United Kingdom taking $504,000 worth; Germany, $277,440; United States, $3,840; France, $460,800; Austria, $24,960; Italy, $54,720, and other countries $408,000. Thus, Switzerland is developing a trade in this line with many of the world's markets. A great deal of satisfaction exists among Swiss manufacturers over the fact that a shoe export trade has been established with Germany, the German manufacturers being the chief competitors in the Swiss domestic shoe trade. Switzerland has already extended her foreign shoe trade to Brazil and other South American countries, furnishing for these markets her best grades of footwear.

[The cost of production of Swiss-made shoes has been ascertained by Mr. Butman for the benefit of the American manufacturers, showing labor wage in the industry. These tables of statistics will be

loaned by the Bureau of Manufactures to the American shoe trade in the order applications are received.]

FRANCE.

HOW AMERICAN GOODS MAY BE SOLD.

Consul-General R. P. Skinner, of Marseille, reports that American boots and shoes sell for more in France than they do in the United States, the difference being approximately represented by the added freight and duty.

Goods are not ordinarily sold in France upon a cash basis outside of the American export trade. American firms as a rule insist upon cash against documents. There are no special directions to be followed in making out invoices, inasmuch as the duty is specific and is calculated by custom-house appraisers after actual inspection of the goods. (In regard to sizes of boots and shoes see report published in Daily Consular and Trade Reports, No. 2,744, December 15, 1906.)

There are no local firms handling American shoes either exclusively or as a specialty. Most of the alleged American footwear used in France is really of foreign origin, but finished more or less after American patterns. In Paris several firms operate American shoe stores and appear to do a large business. In Marseille are a number of firms [the names may be obtained from the Bureau of Manufactures] one might correspond with in regard to handling American footwear.

It will be difficult to create much business by correspondence, but something may be done if American manufacturers will take the pains to visit France and secure personal contact with reliable firms. Real success, however, will be obtained most probably when American firms set up their own establishments, giving the public first-class merchandise, known absolutely to be of American manufacture, upon reasonable terms. There are a thousand reasons why established French dealers would be unlikely to press vigorously a general line of American shoes, even though they might occasionally buy small lots; whereas American shoe stores, filled with American shoes, and offered for sale by American firms, would profit at once by the generally high repute of American footwear, and enable the pioneers in such enterprises to profit permanently by their efforts.

The duty upon printed or advertising matter imported into France from the United States is as follows: Printed in black upon unglazed paper, $19.30 per 220 pounds; the same on calendered paper, $28.95; printed in black on common cards, $4.82; the same on calendered cards, $5.79; printed in colors or gold on common paper, $48.25; the same on calendered paper, $57.90; printed in colors or gold on common cards, $14.47; the same on calendered cards, $15.44.

INDIA'S LEATHER CRISIS.

HEAVY AMERICAN PURCHASES OF HIDES AND SKINS DISTURB TANNERS.

A report from Consul-General William H. Michael, at Calcutta, states that the enormous increase in the export of goatskins, cow and buffalo hides from India is causing a great deal of comment by mer-

chants, newspapers, and others interested in the leather trade of India. He writes:

This comment is directed generally to what is called the "contraction of the local supplies" and the "phenomenal rise in prices," which are ascribed to the activity of export agents, who have, it is alleged, "created a monopoly" in the purchase of the class of hides referred to. The effect of this monopoly is that smaller buyers and many larger, conservative buyers have been driven out of the hide business by reason of the large capital required to do business and the small margins realized. This activity of the export agents, who mainly represent the United States and the Continent, has almost paralyzed the tanning industry of India and has greatly affected the tan-leather exports to England, the only country to which India exports tan leather.

The United States takes practically all of the goatskins produced by India. She tans them and converts them into chrome leather. This leather is acknowledged to be the finest of its kind produced in the world and boots and shoes made of this stock in America are found on sale wherever fine foot gear is worn. Goatskins exported from India come back to India from the United States in the form of chrome leather and made-up foot gear. Neither India nor England make acceptable chrome leather. Experiments are being made in India with a view to chroming leather, but it has been found that climatic influences are unfavorable and little hope remains that it can be done successfully. Besides the Indian hide curers are not well enough versed in the treatment of hides to succeed in the delicate process of producing chrome leather or any other high-grade stock.

INDIA LOOKING FOR PROTECTION—HIGH PRICES.

The situation forces upon the minds of Indians and others interested in fostering the leather trade of India the question of protection. The only measure thus far discussed to any extent is an export duty, which, however, does not seem to meet what has been characterized as "the critical pass to which the leather trade in India has been reduced." It is realized that foreign merchants must have hides at any cost and that the export duty would simply serve to raise prices of hides, which would place the leather concerns in India in a worse condition than they are now. A high export duty would swell the government revenues, but the leather and hide dealers would derive no benefit whatever.

The enormous demand for hides from these countries where a scarcity exists and where the home supply is not equal to the demand has advanced the price of hides in the last ten years 50 per cent, and in the case of "deads" 300 per cent. The price for dry hides per 80 pounds ten years ago was about $4.66, whereas to-day the price is about $15 per 80 pounds. This is amazing, but nevertheless true. The necessary effect of this advance and the advancing price of hides will be to increase the price of boots and shoes, both imported and home-made. A leading Indian newspaper has said that the machine-made foot wear made in America will eventually destroy the Indian boot and shoe industry, which is by hand. I do not believe this is possible, considering the kind of boots and shoes worn by the masses in India. It may be true with respect to the higher and finer grades of foot wear, but even in this line the imitations by Chinese, and Indians also, will be made and sold in competition with the best imported article.

RUINOUS COMPETITION—COW, BUFFALO, AND GOAT HIDES.

I was much interested in a statement made by a member of a leather firm of importance to the effect that less than twenty years ago there were a large number of boot and shoe manufacturers and contractors engaged in business in Cawnpore, which is really a fine manufacturing city, all of whom have withdrawn from the business in consequence of the high prices prevailing for hides, due entirely to the demand for cow and buffalo hides and goatskins in America and the Continent, especially America.

The records show that the total number of cowhides exported in September, 1906, to the United States, the United Kingdom, and the Continent was 519,744, as compared with 418,481 for the corresponding period in 1905 and 290,609 in 1904, the figures having practically doubled in three years' time. Similarly in October, 1906, the figures were 724,809, as compared with 436,807 for the same month in 1905 and 561,408 in 1904, an enormous advance over the figures for the preceding month of September in the three years under review. Again, the total number of buffalo hides exported in September, 1906, was 63,840, as against 23,300 for the same period in 1905 and 21,515 in 1904. In October, 1906, the figures rose to 80,472, compared with 60,440 and 29,425 for the same month in 1905 and 1904, respectively.

The United States takes nearly all of India's goatskins, as is shown by the following figures, which are official: In September, 1906, India exported 467,040 of these, America alone taking 394,167, and in October, 1906, the exports were 800,338 skins, of which America took 702,228.

ADULTERATION.

STEPS TAKEN TO CHECK THE EVIL ABROAD AND AT HOME.

The Shoe and Leather Reporter says that advices from British correspondents seem to show that something has cropped up in connection with the matter of adulteration of Australian leather.

It appears that under the New Victoria Pure Food Act every parcel of exported leather has to contain a certain certificate showing the amount of added weighting matter. This drastic provision has already been effective in lessening the adulteration lately so prevalent in Australia; in fact, the result of analyses by the Victorian official analyst clearly proves this is so. The trade done with Great Britain in Australian sole leather dropped to nothing owing to the excessive weighting indulged in, although many tanners have alleged that a certain amount of sugar or glucose actually improved the leather. Of course tanners may be in earnest in saying a certain amount of sugar, or barytes, or even Epsom salts, may be good for leather, but the British customs men are evidently of the opinion that they shall, when possible, add to the revenue. Sugar and Epsom salts have their place, but it is in the interior of the human anatomy, not the exterior, in shoes.

The Boot and Shoe Manufacturers' Association of the United States, at their recent annual convention, passed a resolution in effect that the use of glucose and clay are not necessary in the manufacture of sole leather, and that action be taken to secure legislation which shall pre-

vent or forbid in such manufacture their use, or the use of any other foreign substance which is only used to add to the weight. No previous action has been taken in the matter by any of the shoe trade organizations of this country.

GLOVES AND LEATHER.

IMPORTATIONS INCREASE—COMPLAINT OF AMERICAN MANUFACTURERS.

The imports of leather gloves into the United States during 1906 amounted to $9,196,398, an increase of $3,771,961 over 1905. Of this amount Belgium supplied $231,328 worth; France, $4,035,638; Germany, $3,407,565; and all other countries, $1,521,865.

The importation of long-length gloves is said to account in part for the increased value of the imports. The increase in the value of the leather from which the gloves were made was another factor in the matter. The specific duty on manufactured gloves and the ad valorem duty on leather are said to have worked to the disadvantage of the American producers. "Shoe and Leather," in commenting on the subject, says:

"For example: Kid stock obtainable in 1903 at $8 per dozen skins paid a duty of $1.60, which in 1906 had advanced to $13 per dozen, and therefore paid a duty of $2.60, an increase of $5 in the cost of the stock and $1 in the duty; whereas the foreign manufacturer could get his glove product of this leather into this market under a specific duty entirely unaffected by the increase in the cost of the stock. In other words, by comparison with conditions before the stock increase, the foreigner has a margin of $1 per dozen skins advantage. To what extent this affected the increased valuation of imports for the year 1906 it is quite impossible to determine, but that it did affect it is quite certain."

FOOTWEAR AT ROTTERDAM.

AMERICAN BOOTS AND SHOES IN THE NETHERLANDS.

Consul-General Soren Listoe, writing from Rotterdam, in answer to an inquiry from an American manufacturer of boots and shoes in regard especially to introducing high-topped boots into the Netherlands, says:

There is but little demand for high-topped boots in this country, there being very little hunting or horseback riding done here. The selling price of American boots and shoes is but slightly higher in Rotterdam than in the United States, only the ocean freight and the duty, 5 per cent ad valorem, being added to the price. American boots and shoes are sold at Rotterdam against 30 days' sight draft. It is not necessary to describe on the invoices all the materials used in the manufacturing of the shoes; simply the kind of leather is sufficient. The boots and shoes can be marked with the American sizes.

The catalogues and other literature sent to the Netherlands may be printed in English or in Dutch; for stylish goods the English will answer just as well. There is no import duty on printed matter, therefore price lists can be entered free of duty. When posters for show windows are attractive the dealers will certainly use them.

[The names of the principal Rotterdam dealers and importers of American shoes are on file in the Bureau of Manufactures.]

SOIL PRODUCTIONS.

CIDER MAKING IN FRANCE.

CAREFUL METHODS OF MANUFACTURE—EXTENSIVE SALE.

Consul D. I. Murphy, of Bordeaux, finds that the manufacture of cider in France has assumed enormous proportions and in some parts of the country, especially in the north, its consumption exceeds that of wine. He furnishes the following details of this industry:

The official report of the French Minister of Finance, recently published, shows the cider production of 1906 to have been 589,141,287 gallons, against 127,541,276 gallons in 1905. It used to be said that the cider output was usually about one-fifth that of wine, but in 1906 it was considerably more than one-third. To the great yield of 1906, the ten departments in this consular district contributed 328,818 gallons. The following figures exhibit the production for the last six years:

	Gallons.
1901	326,394,078
1902	243,326,987
1903	149,810,807
1904	1,081,855,401
1905	127,541,276
1906	589,141,287
Total	2,518,069,836

The method of making cider in France differs in some respects from that followed in America. Greater care is exercised here in the gathering of the apples, in the selection of the fruit, in the manner of fermentation, and in the racking. A brief summary of the different processes may therefore not be without interest.

KINDS OF APPLES USED AND METHODS FOLLOWED.

While there are over 80 varieties of apples grown here I find that but 12 of them are ever used for making cider. These are the "Marin," "Onfroy," "Grosbois," "Bedan," "Blanc Mollet," "Railé," "Fréquin Blanc," "Fréquin Rouge," "Jaune et Pointu," "St. Laurent," "Martin Tessart," "Prune de Miel," and "Argile." It is said that sweet apples make a flat cider, difficult to preserve and lacking in alcohol. Cider made from bitter apples is poor, thick, and astringent, and sour apples make an acid cider, which is considered injurious to the digestive organs.

The best apples for cider making are those which contain sufficient sugar and tannin and which have a pleasant fragrance. These qualities, the varieties mentioned, especially the first three named, possess in a remarkable degree. Many of the manufacturers claim that a

mixture of one-third of sweet apples to two-thirds of bitter and sour apples makes the ideal cider.

The apples are gathered only during fine weather. They are shaken from the trees and caught in nets to prevent bruising or contact with the ground. If they are not carried immediately to the press, they are placed in dry lofts where there is a good circulation of air until ready for use.

SOUND AND CLEAN APPLES ONLY USED.

The idea that "fermentation purges of all impurities" is not believed here, at least so far as cider making is concerned. No green, decayed, or worm-eaten apples are ever used. The fruit must be clean, for even a little particle of earth, it is claimed will produce a chemical action that is highly injurious. The fruit is first put through a cutter, the pulp and juice collected in a vat and exposed to the air for about fifteen hours, being stirred from time to time with a "palette." The pulp is then put in the press, in layers of from 4 to 6 inches separated by light-rush screens, and the juice extracted. At this first pressing, the best of the modern presses (the old cumbrous affairs having almost entirely disappeared), give no more than 65 to 70 per cent of pure juice. The "must" from this first pressing is placed in a vat, warm water being added to the extent of 25 to 30 per cent of its volume. It is left to macerate for about fifteen hours and then pressed the second time. To the remaining "must" there are added 10 gallons of water to every hundred pounds and then comes the third pressing.

One hundred pounds of apples are said to yield of first quality pure cider 60 to 70 pounds; of second quality cider, 25 to 28 pounds; and of third quality cider, 25 to 28 pounds. In some places cider is made by the method of diffusion, which consists of macerating finely chopped apples for twenty-four hours with an equal quantity of water. The process is repeated three times, but I am advised that the results are not nearly so satisfactory as the method previously indicated.

Cider is fermented here in closed apartments, with a temperature of from 54° to 65° F. The casks in which it is to ferment are thoroughly cleaned and the sulphur wick is burned in them. In the fermentation the lighter substances, called the "chapeau," rise to the surface, and the heavier—the lees, which are thick and sticky—fall to the bottom. Between the two is the pure cider. If the fermentation is not sufficiently active it is usually increased by taking out and heating one-fourth of the contents of the cask and then pouring back over the rest.

RACKING AND STORING—MALADIES ENCOUNTERED.

After fermentation (in from four or five days if the temperature is moderate, a little later if cold) the cider is drawn off carefully into sulphured casks, which are always kept well filled. Two months later it is again racked, and six weeks later drawn off for the third time. The liquid is then generally perfectly clear, but if not, it is clarified with about 2 ounces of tannin for every 26½ gallons.

Cider is best preserved in cool, dry cellars and in bottles better than in casks. Thick champagne bottles are always used, and the corks are tied with twine. Rubber stoppers are never used here for cider bottles. If bottled fresh, the cider becomes sparkling. If it is found to be slightly acid, two or three grams of candied sugar are

added to each bottle. Three months afterwards the cider becomes like "fruity champagne."

Cider frequently turns bad, especially if every stage of its manufacture has not been well looked after and carefully done. Among the principal "maladies" to which cider is subject I may mention the following, with the appropriate remedies employed: "Fleur du Cidre" is a sort of white veil floating in the cider, and as soon as it is noticed the liquid is drawn off into a clean cask, recently sulphured.

Acidity, when the cider is turning into vinegar, is corrected by pouring into the cask, through the bung, 20 or 30 grams of good olive oil per hectoliter (26½ gallons). If necessary add 200 to 400 grams of neutral tartrate of potash per cask or a little powdered lime or chalk. Bitterness is corrected by adding 300 grams of sugar and 10 grams of tannin per hectoliter. Fermentation should be provoked by taking out and heating one-fourth of the liquid and pouring it back, drawing off six or eight days later. Greasy cider occurs when it becomes sticky and greasy and flows like oil. It is remedied by adding 30 grams of tannin, dissolved in a little water, to each cask. When the cider becomes very dark ten grams of tannin are added to the cask, and after racking the liquid becomes clear again.

A hectare (about 2½ acres) of 200 apple trees is said to yield about 2,245 gallons of good cider, worth on the spot about $130. The cost of keeping up the orchard and of making the cider is about $65, leaving a profit of 50 per cent. Doctors here in France say that cider drinkers are rarely subject to bladder, liver, or kidney diseases.

MALT EXTRACTS.

FRANCE.

TARIFF CHANGES AND REGULATIONS.

Consul-General R. P. Skinner, writing in regard to the laws of France, regulating the importation of malt extracts and mineral waters, quotes the collector of customs at Marseille as follows:

As to the pharmaceutical preparations, with the exception naturally of such as are not mentioned in any official pharmacopœia (and which in consequence are prohibited), the medicines which have been prepared according to the formulas of the French and foreign pharmacopœia are admissible in this country. The single formality to which importers are subjected in the case of products not yet officially authorized, consists in securing a determination from the Superior School of Pharmacy of the specific taxation to be applied according to the weight or the volume, upon the basis of 20 per cent of the value according to the general tariff (the general tariff applies to American imports) and 15 per cent under the minimum tariff. Requests for this authorization should be addressed to the minister of commerce.

As to foreign mineral waters, they can only be imported into France if they figure upon the official list of authorized mineral waters. In the contrary case they are prohibited; but this prohibition may be removed by ministerial decision upon a formulated demand addressed directly by the importers to the minister of the interior.

The general tariff upon mineral waters is 20 francs per hundred kilos ($3.86 per 220 pounds) net, and their recipients are subjected to the tax applicable according to their nature. Under the minimum tariff (which does not apply to products of American origin) mineral waters are free of duty. For such as are imported in jugs the immunity extends to the container and to the contents; but when they are imported otherwise than in jugs, the recipients, bottles, etc., are taxed separately. I complete the information here supplied by indicating that the restrictions mentioned apply only to importations of a commercial character. In the case of medicines or mineral

waters imported in trifling quantities for the personal use of individuals and beyond the range of commerce, the administration may, exceptionally, and upon special request in each case, authorize the introduction of such articles upon payment of the taxes laid down in the regular list.

From the foregoing it will be perceived that in order to introduce a new article, whether tonic or mineral water, into France, the exporter must enlist the services of a general agent, capable of coping with all the formalities, so that the merchandise can be delivered without difficulty to the small retail dealers. [Mr. Skinner sends a list of dealers whose names are on file in the Bureau of Manufactures, and may be had by interested persons upon application.]

AUSTRIA-HUNGARY.

STRICT REGULATIONS AS TO IMPORTS.

Consul S. C. McFarland, of Reichenberg, writing concerning Austria's regulations covering imports of malt tonics, supplies the following information:

The laws of Austria are very strict about the importation of any preparations containing drugs of any description. It is necessary, first, to have some established pharmaceutical firm here act as business associate, from which a petition is addressed to the "k. k. Ministerium," setting forth the source, complete analysis, and therapeutic indications of the preparation, and begging permission to import the article. As a rule the Government does not readily grant this privilege, so that imported proprietary preparations are almost unknown here, while patent medicines of which the formula is a secret are absolutely shut out.

A pure malt extract containing no drugs whatever would come under the head of "food stuffs." A duty is imposed on malt extracts imported from countries bound to Austria by special treaties of kronen 36 ($7.20) per 100 kilos (220.46 pounds) on fluid preparations, and kronen 72 ($14.40) per 100 kilos on dry (powder) extracts. In calculating the weight for purposes of adjusting the duty, the weight of the bottle would be included.

INDIA TEA GROWING.

EFFORTS TO IMPROVE CULTURE—BLACK VARIETY SAID TO BE BEST.

A recent visit to Darjiling, located 7,500 feet above the sea in the Himalaya mountains, enabled Consul-General William H. Michael, of Calcutta, to learn some facts about tea that he says the American people should know, especially as to the machinery needs of the curing establishments. Mr. Michael writes:

There are thousands of acres on the mountain slopes that stretch off westward to the Bengal plains covered with tea plantations. These slopes, sometimes declivities, are terraced from top to bottom, the terraces having level tops of about 2½ feet and faces of about the same. Along the terraces are the tea bushes, which are about three feet tall and as thickly covered with leaves as any hedge in America. The bushes are kept carefully pruned, and the ground around them freed from weeds. There is a good tea bush which produces tea of fine flavor

from small, delicate leaves, and there are others, the leaves of which are much larger and coarser and without the desired flavor. The aim in the Darjiling district has been to substitute for the coarser the finer and better grade. The tea from this district, which contains thousands of fine tea plantations, ranging in size from 100 to 4,000 acres, is generally of superior quality. The teas that are fit to drink are as follows, viz: Broken orange pekoe, peko souchong, flowery orange peko, and peko.

BLACK AND GREEN TEA COMPARISONS.

These grades result from selection and treatment, consisting in rolling, breaking, drying, and sifting. The best is broken orange pekoe, which consists principally of the smallest of three leaves that constitute the tuft that are desirable for tea. The next largest leaf is next in rank of the value, and the largest is the least desirable. All, however, make an excellent "black tea." No green tea is made in the Darjiling district, and the general purpose of the planters is to allow no green tea to be made.

The English Government pays a small royalty for green tea, but this is no inducement to the planters who can produce pekoe tea, yet it is an inducement to the planters of Assam who grow coarse and flavorless tea. The large-leaf tea is put through a process of wetting and handling (with the hands) by coolies until it takes on the green color, then packed in boxes and shipped to England where it is probably rehandled with a view to grading it for the American demand.

The Assam tea estates employ 677,407 hands—men and women—who are paid, respectively, $2.43 and $2.08 per month, and board themselves. Sir Henry Cotton tried to force the wages up by legislative action but failed to do so. While this is small compensation, yet the coolies live on it and save a little money, although very little. The wages paid tea-garden coolies in other districts are about the same. The other expenses attending the making of tea are comparatively light, and as a rule the estates pay big dividends, yet planters do not make as much money as the manipulators of tea. Most of the tea produced in India and Assam is sold at auction in Calcutta. There are regular days for these sales, and generally the bidding is spirited and the tea brings the highest prices warranted by the daily market reports from London.

I took occasion to see the kind of machinery used, and to learn where it was manufactured. An ordinary tea mill contains a room for rolling and breaking, a room for weighing, a room for dyeing and sifting, a room for testing, and a room for packing and storing, besides the power rooms. The machinery consists of a boiler and engine, a dynamo, an electric motor, a roller, a breaker, dryer, and sifter. All of the machines I saw of this description were made in Gainsborough and Sheffield, England. The machine builders of England have made an expert study of the needs of the tea producers, and endeavor to accommodate them in every way. Some improvements have been made in machinery, and I took pains to see the latest and what is considered the best, yet it appeared to me to be clumsy and wanting in finish.

AMERICAN MILL MACHINERY.

A thorough study of the situation by a capable and ingenious American inventor I am sure would result in many changes, and of course ultimate trade for America. In the construction of stationary

engines, dynamos, electric motors, and other mill machinery America leads the world, and there is no reason why the United States should not have a share in the trade of tea-mill machinery except that growing out of the fact that the tea planters are British subjects and, therefore, prejudiced in favor of machinery made "at home," and because they are unfamiliar with the superior machinery made in the United States.

This is another case calling for demonstration where a "model" mill for a tea plantation would be educational, and get trade for America. A practical and inventive American machinist would not only be able to build better machinery than is now in use in tea mills, but if he were on the ground long enough he would very soon evolve something new that would save money to the planter and improve the appearance of the tea.

There are thousands of hook knives used on tea plantations for pruning purposes. The knives I saw were all made in Sheffield and by one firm. This trade is alone worth a fortune. The knives did not compare favorably in point of finish with American pruning knives. The machinery and cutlery trade of the tea districts of India and Assam is worth considering by American manufacturers.

COFFEE IN BRAZIL.

VALORIZATION PLANS—ACTION BY PRODUCING STATES.

Consul-General George E. Anderson, writing from Rio de Janeiro, December 22, 1906, says of the valorization law now in operation in the coffee-producing States of Brazil:

The plan of bringing about an artificial valuation of coffee in the world's markets, notably in the markets of the United States as the largest consuming country, by purchases of the commodity in the Brazilian market by governmental agencies, with funds raised by a tax on the coffee sold, was first intended to depend upon a loan raised by the three States, contracting with each other to enter into and support the project this loan to be guaranteed by the Federal Government of Brazil, and to be for about $75,000,000. The Federal Government, however, declined to guarantee the loan, and the three States concerned, Rio de Janeiro, Sao Paulo, and Minas Geraes, agreed to make the attempt to secure the necessary funds upon their own credit, especially basing it upon the surtax of three francs per bag of 132 pounds upon the coffee shipped out of those States.

NEGOTIATIONS FOR THE LOAN.

There has been difficulty in securing any considerable loan of money, however, and the amounts asked for have dwindled from time to time until the amount considered necessary for the operation of the project was fixed at $15,000,000, and this the contracting States undertook in earnest to raise. They also agreed to impose the 3 francs surtax at once, and the State of Sao Paulo commenced to impose it December 1. The other two States failed to do so, the failure of efforts to raise a loan rendering it impossible in their opinion to make a success of the general undertaking. The government of the State

of Sao Paulo, however, continued its efforts toward securing the necessary funds, and it has been announced that the loan for $15,000,000 has been arranged for in London, on account of the State government of Sao Paulo, at 94 per cent, $5,000,000 of which is to be subscribed in the United States. Shortly after a meeting of representatives of the three States was had, at which it was decided to impose the surtax of 3 francs a bag in Minas and Rio de Janeiro after January 1. At that time all the States will be imposing the tax and the valorization plan may be said to be in full force.

It is said, however, that part of the loan agreement is that $5,000,000 of the loan raised is to be used in taking up the treasury bills issued to pay for the coffee which the Sao Paulo government has already bought in its efforts to maintain prices. This may reduce the quantity of coffee which may be bought to maintain the minimum.

The general understanding is that the Government agencies will buy what coffee is possible with this fund and then borrow more money upon the coffee bought with which to make additional purchases. In other words, the $15,000,000 is to be used as a margin for the purchase of coffee, which is to be held for sale at an empirical price fixed by the holders. If the next year's crop is small enough to make an insufficient supply for the world's markets the price of coffee will naturally be raised to this minimum fixed by the State governments in Brazil, and the project may at least be prevented from meeting with disaster up to that time. If next year's crop equals the average, not to say if it should be above the average, it is very doubtful if the speculation could last long enough to see the next crop harvested.

The course of the market since the plan has been given effect has not been such as would promise success, but it has been such as to positively promise failure. In spite of the purchases of coffee for Government account there is a marked tendency of prices to sag on the least excuse.

WINE CROP.

SPAIN.

FAIR RESULTS IN SEVILLE—REPLANTING WITH AMERICAN VINES.

The result of the last wine crop in the Province of Seville has just been made known, and the following report thereon was translated by Vice-Consul Charles Karminski from a Spanish newspaper:

In the zone called the "Aljarafe," the arroba (32 pints) of must was sold at 9½ reales (42 cents) without choice. Musts have given an average alcoholic strength of 12° to 13°. The copious rain of September caused a big loss in the alcoholic force of the wines. These rains coming in full vintage time caused the grapes to lose a fair amount of their sugary substance and consequently the alcohol.

The prices of wine are steadily increasing, which, according to the opinion of many viniculturists, is largely due to the new commercial treaty with Switzerland, considered as very advantageous to the wine industry. In certain zones the phylloxera made such havoc in the vineyards that immediately after gathering the grape the vines began to lose root. The proprietors of these vineyards have decided to replant with American vine stocks, which resist the phylloxera and are

giving very good results in this province, both as to the quantity of the fruit and quality of the must obtained.

The orujo (skin or peel) of the pressed grape and residues of the wine have no other application than for vinegar, as the majority of the wines are exported in their musty state, and frequently before active fermentation is completed, the utility of the tartar being thus of no consequence. Vinegars having an acetic acid strength wavering between 40 to 50 grams per liter are kept for local use. On the whole the wine crop, notwithstanding the harm caused by the phylloxera, vine mildew, and white goosefoot, may be considered as fair throughout the province.

The results of the last vintage, in the Province of Seville, has been as follows: Surface devoted to vine culture, 11,349 hectares (hectare =2.471 acres). Average grape production per hectare, 28 to 42 metric quintals (quintal=220.46 pounds). Total grape crop, 396,842 metric quintals. Grapes laid aside for making wine, 341,852 metric quintals. Grapes intended for direct consumption as fruit, 55,000 metric quintals. Must given by every 100 kilos (kilo=2.4 pounds) of grapes, 46 to 57 liters (liter=0.9 quart.) Total production of must, 181,176 hectoliters (hectoliter=26.417 gallons). Average production of must per hectare, from 0.14 to 0.22 hectoliters. Average price per hectoliter of must, from 16 to 20 pesetas ($2.83 to $3.54).

FRANCE.

AMERICAN PURCHASES OF CHAMPAGNE.

Consul J. M. Miller, of Rheims, reports that the declared exports from that important French port to the United States for the quarter ended December 31, 1906, amounted to $2,433,300, an increase of $161,006, over the same period of 1905.

Of the total exports for the three months, $2,263,424 was for champagne, and the remainder, $169,875, for thirty-two other articles. The money paid for champagne averaged $24,602 a day or $172,217 a week. Of the thirty-two articles other than champagne exported, artificial silk constituted the largest item, its value being $11,422. The exports from the Troyes agency to the United States during the quarter showed an increase of $79,828 over the corresponding period of 1905. There was a falling off in the value of hosiery amounting to $27,000, but an increase in the export of kid gloves, the total value of which was $187,925 for the three months.

SUGAR INDUSTRY.

FORMOSA.

INCREASED PRODUCTION—GOVERNMENTAL ENCOURAGEMENT.

Consul Julean H. Arnold writes from Tamsui that the production of sugar in Formosa is increasing year after year.

The season for 1906 showed a production of 159,000,000 pounds of brown sugar and a total of 178,500,000 pounds of all grades. This is 50 per cent greater than the production of 1905, while in eight years the production of sugar in Formosa has shown a growth of 90 per cent.

Formosa sugar is admitted to Japan free of duty, although an export duty is imposed upon this sugar when exported from Formosa to foreign countries. The 1906 exports from Formosa to Japan exceeded those of 1905 by over $1,160,000 gold, being equivalent to about 15 per cent of Japan's total consumption. As Japan proper produces no sugar, it is plainly evident that the recent increase in import duties is intended to assist the Formosa industry.

A Sugar Bureau has been created under the charge of Doctor Nitobe, a well-known economist, who has been making a special study to improve and extend sugar-cane culture in Formosa. Shoots for planting have been distributed free of charge to growers. That the growers have taken to the introduction of improved canes is attested to by the fact that in 1903 there were 2,520,000 shoots distributed among them, which increased in 1906 to 15,410,000 shoots, so completely exhausting the supply of the Bureau that purchases had to be made from private nurseries.

Improved fertilizers have been introduced. Among the new fertilizers in use are goose bone dust, Australian bone dust, and Manchurian bean cake. The importations of bean cake in 1903 were 154,835 pounds and during 1905, 477,756 pounds. Peanut-oil refuse was also imported for fertilizing and used to the extent of 149,040 pounds in 1904, but has not been popular because of its higher cost. It is expected that the use of artificial fertilizers will continue to increase as the development of the sugar-cane industry advances.

BONUSES AND SUBVENTIONS.

To assist and encourage the growing and the manufacture of sugar, the Sugar Bureau grants bonuses and subventions to growers and manufacturers. In the southern part of the island there is considerable land belonging to the Government which is adapted to the cultivation of sugar. In order to bring this land under cultivation, the Sugar Bureau is empowered to grant to prospective growers the following bonuses: For plants, a sum not to exceed $1.80 gold for each one-tenth ko (1 ko=2.43 acres); for fertilizers, a sum not to exceed $2.50 gold for each one-tenth ko; for cultivation expenses, a sum not to exceed $1 gold for each one-tenth ko. After ten years of successful cultivation the grower is entitled to a title deed conveying to him the land cultivated by him. For irrigation and drainage works, before any such may be undertaken, application must be made to the Government, upon the granting of which the Government empowers the Sugar Bureau to defray an amount not greater than 5 per cent of the total cost of the undertaking. Up to 1904 the Sugar Bureau was empowered to dig artesian wells and undertake drainage systems, and it spent $7,117 gold in so doing. The total area under cultivation now as compared with the area under cultivation in 1902 is about double, the area at present cultivated being estimated as 88,000 acres.

METHODS OF MANUFACTURE.

In 1900, the agricultural section of the Formosan government, with the aim of introducing modern methods of manufacture of sugar in the island, installed two American crushing mills. It was soon shown to the Chinese producers that they might secure 20 per cent more juice by the use of these rolls instead of the antiquated Chinese stone crushers. After the creation of the Sugar Bureau, a number of these

rolls were introduced to displace the stones. The efficiency of modern machine methods over primitive native methods has been amply demonstrated. For several years the Sugar Bureau was empowered to grant subventions to companies erecting sugar factories, basing these grants on the amount of capital invested. Since 1904 bonuses have been granted upon a basis of 20 per cent of the purchase price of the machinery. Since the establishment of the Bureau $380,348 gold has been distributed in bonuses to factories.

When a new company wishes to engage in the manufacture of the crude sugar, it must file an application with the Sugar Bureau, through the prefect in the district in which it desires to operate, stating in this petition full particulars as to its working capital, proposed capacity, etc. In case the Sugar Bureau grants the application, it designates certain areas from which this mill may secure its cane. No company is permitted to purchase cane in any other than the district assigned to it unless by special grant from the Sugar Bureau.

The growers, in turn, are obliged to sell their cane to the mill operating in their respective districts, unless granted special permission from the bureau to do otherwise. Thus, competition in the buying and selling of the sugar cane is barred. The price paid for the cane is determined by the company making the purchase. In case the growers are dissatisfied with the price offered they may lay the matter before the district prefect, whose duty it is to effect an arbitration between the company and the growers.

It is the duty of the prefect of each district to keep in touch with the conditions obtaining in their respective prefectures as regards any tendencies on the part of the mills to take undue advantage of the growers, and report such to the chief of the Sugar Bureau. The mills are obliged to send to the Sugar Bureau regular reports setting forth complete statements of their operations, prices paid for materials, sales of sugars, prices realized, etc.

OFFICIAL REGULATION.

In this manner the Sugar Bureau regulates the industry, and is able to render to it such assistance as it finds practical. A large number of these mills control the land upon which much of their cane is raised, renting it to growers and advancing to these money and materials sufficient to carry on the growing of the cane at a small profit to them. In other cases the manufacturers arrange at the beginning of each season with the growers, fixing a certain price to be paid for the cane, and advancing money against the crop upon the fixed price basis. Most of the mills have agents in Japan who contract to take their products for the Japanese refineries. Practically all of the refining is done in Japan.

The prospects for the erection of a number of new mills of large crushing capacity are quite bright. In fact, several large companies have already organized and are preparing for the erection of their plants as soon as they are able to secure the necessary machinery and equipment. One crushing company has a capital of $2,500,000 gold. another has increased its capital from one-half million dollars to five times that sum; another half million dollar one is organizing, and there are many smaller concerns making up an aggregate of $10,000,000 capital either invested or about to be.

GERMANY.

RECORD SUGAR EXPORTS.

Consul-General Hugh Pitcairn, of Hamburg, says that the German sugar exports during the past year reached dimensions never before recorded.

The amount for the first eleven months was 596,914 tons refined and 512,931 raw, against 357,199 refined and 259,790 tons of raw sugar exports for the same period of 1905. The increase was caused by a falling off in the production and by political disturbances in other countries. The exports to the United States increased from 8,467 ons of raw sugar during the first eleven months of 1905 to 107,290 tons for the 1906 period, while in the same periods India's purchases of German granulated sugar increased from 1,680 to 48,889 tons, and Chile's purchases of German tablet and cube sugar increased from 2,002 to 13,137 tons.

FRUIT INDUSTRY.

AUSTRALIA.

MARKET FOR APPLES, PEARS, ORANGES, AND LEMONS.

The following report of Special Agent Harry R. Burrill, written from Sydney, New South Wales, contains information that will be valuable to American fruit growers and especially those on the Pacific slope:

A consignment of 3,186 cases of American apples recently received in Sydney the fruit created a most favorable impression. The apples were grown in the State of Washington, shipped from Seattle in cold storage, and on their arrival were declared by the government inspector here to be the best consignment he had ever handled. The apples are larger in size than those grown in Australia, have a beautiful color, are firm, juicy, and delicious to the taste, and well merit the unstinted praise which they have received from dealers and consumers alike.

The arrival of these apples in perfect condition, with their natural bloom unimpaired, and looking as fresh as though they had just been taken from the tree, demonstrates the feasibility of exporting fresh fruit to this market in greater quantities than has hitherto been attempted, although care must be taken to limit American shipments to the two or three months of the year when Australian fruit can not be had. Any attempt to put American fruits on the Australian market in direct competition with those grown in her own soil would be attended with failure, but it is equally certain that a ready sale awaits apples, pears, oranges, lemons, and, to a lesser degree, other products of American orchards if they are laid down here during the time that similar Australian fruits are not in the market.

PROPER TIME TO SHIP APPLES.

American apples should be shipped so as to arrive in Sydney by October 1, and a steady demand and good prices will obtain until the 1st or the 15th of December. After that date it would be useless to attempt to dispose of American apples here, for the Australian fruit

is then ripe and the markets are plentifully and cheaply supplied. The Tasmanian apples, for which there is great demand, appear on the market in March, and under normal conditions the season lasts until the 1st of October. By that time they are scarce and stale, and the trade is ready for the American fruit.

Apples are shipped out here in cases each of which contains about a bushel of fruit. Approximately $1.25 a case will cover the freight, customs duty, landing charges, and all other expenses incidental to the transportation from the Pacific coast to Sydney, and experience has demonstrated that this rate, added to the original cost of the apples at the port of shipment, still leaves a satisfactory margin of profit. There are responsible fruit and produce commission houses in Sydney which would be pleased to form American connections, and there is no reason to doubt that an arrangement of that kind would prove mutually advantageous.

POPULAR VARIETIES.

American shippers must always bear in mind, however, that the Australian laws governing the importation of fruit are so strict that a blemish or imperfection of any kind would cause its rejection. Apples exported from the United States must be in prime condition and should be carefully packed, for the entry of unsound fruit is absolutely impossible.

Several varieties of American apples may be found on the Australian markets during the months of October, November, and December, and among the most popular varieties may be mentioned the Red Permain, Winesap, Missouri, and the Jonathan. The Red Permains are sold to the trade for from $2.75 to $3.25 a case, while the Winesaps, Missouris and Jonathans command approximately 25 cents more a case. The Red Permains are usually the first American apples on the market, and come into competition more or less with the last of the Australian apples. Arriving later the other varieties thus find a stronger market and consequently can be sold at a higher price.

PEARS, ORANGES, AND LEMONS.

The Australian pear season closes in June, and Australian importers suggest that American pears should be shipped so as to arrive in Sydney by the 1st of July. Shipments should continue until the 1st of October, after which it would be unwise to export them. The native pears are on the market by November 1, but in the months indicated the dealers here believe that a far more satisfactory business could be built up.

American oranges and lemons should be on the Australian markets between December 1 and April 1, after which date the Australian season begins. American plums and peaches are also to be found here, but not in large quantities.

The trade, although somewhat contracted, both as to the comparatively short season in which business in American fruit can be transacted and the size of the market, is nevertheless sufficiently attractive, in the opinion of the importers of New South Wales, to justify a careful investigation on the part of American exporters. It is believed here that a trade far more profitable than now exists could be built up and steadily increased if satisfactory business connections were made and every shipment of fruit maintained the standard of excellence required.

AMERICAN APPLES IN GERMANY.

Consul-General Richard Guenther, of Frankfort, writes that a discussion is going on among German horticultural interests, one expert stating that so much poor fruit is raised in Germany that 90 per cent of the apples are not marketable. Mr. Oberhof, a noted German fruit grower, says that American apples do not come into competition with the domestic product at all, as the latter is all sold before American apples make their appearance in the German markets. Mr. Guenther's observations sustain this opinion.

CANADA.

RIGID PACKING LAW MAKES SUPERIOR EXPORT SHIPMENTS.

According to the American Agriculturist, the foreign apple trade of the United States is liable to be adversely affected by the rigid fruit inspection laws of Canada.

Europe is now taking with reasonable avidity the apples that both the United States and Canada send across each year, but the fact that Canadian apples are packed uniformly, and that government regulations practically guarantee that each barrel shall contain fruit as marked, may have much to do in creating a premium on Canadian apples in foreign markets.

The original fruit marks act of Canada was passed in 1901. The regulations as originally enacted provided that every person who packs fruit in a box or barrel intended for sale shall cause said container to be marked in plain and indelible letters, not less than one-half inch high, before fruit is taken from the premises where packed.

Amendments were made, however, in June, 1906, which the chief of Canadian fruit inspection says will cause Canadian No. 1 grade to be somewhat higher than formerly. The marking must consist of the initials of the packer's Christian name, his full surname and address, whether he be individual or corporation. It must also have the name of the variety or varieties of fruit therein, with the designation of the grades thereof. One of the marks, "Fancy," "No. 1," "No. 2" (the standard market grade), or "No. 3," must be used to show the grade of all closed packages. "Fancy" quality must consist of no imperfect or small fruit. "No. 1" grade must be 90 per cent perfect fruit, all apples being well grown, not less than medium size and of good color. "No. 2" fruit must have 90 per cent free from all defects that cause material waste, and must be not less than nearly medium size for the variety. Penalties for violation of the law are prescribed.

The New England and Middle Western horticultural societies are discussing the matter of official government inspection of American fruit exports.

TOBACCO TRADE.

CANADA.

ACTIVITY OF THE DOMINION MARKETS.

Consul H. D. Van Sant reports from Kingston that during 1906 the tobacco trade in that part of Canada was exceptionally brisk, concerning which he writes:

The amount of cigars manufactured in Kingston and, in fact, throughout Ontario, has scarcely been equal to the demand. Several

leading cigar makers state that "green" cigars are turned over to the trade as soon as made on account of rush orders.

Thus far the efforts to raise a domestic tobacco equal in quality to the tobacco raised in the United States has not met with the degree of success anticipated. It is said that cigars in this district are made almost entirely of a mixed American and Canadian tobacco, and entirely of Wisconsin or Connecticut binders. The latter is said to be the best binder tobacco imported into Canada from the United States.

Canadian domestic tobacco is used largely among the French Canadians for smoking or for plug tobacco and for use in the manufacture of a cheap grade of cigars. Essex County has become the center in Ontario for raising tobacco, while Kent County comes second, and efforts are being made toward tobacco growing in Manitoba, where the soil is said to be similar to the black tobacco soil of India. Yet the tobacco manufacturers of this district inform me—and I think it is generally admitted—that the domestic tobacco of Canada on an average is an inferior grade and not comparable to the better grade tobacco of the States.

EXTENT OF MANUFACTURES AND IMPORTS.

In 1906 Canada manufactured 3,178,725 pounds of tobacco and 1,031,110 cigars from home-grown leaf. There was also manufactured from domestic and foreign leaf tobacco in combination, or mixed foreign and domestic leaf, 1,845,272 pounds of tobacco; 9,630,795 cigars, and 7,161,500 pounds of cigarettes.

The Canadian duty of $6 per 1,000 cigars for foreign leaf tobacco, besides a further duty of 10 cents per pound on tobacco, when manufactured, amounting to about $2 per 1,000 cigars, making a total of $8 per 1,000 cigars, is almost prohibitive. Notwithstanding this tariff, in 1906 Canada imported from Cuba 79,888 pounds, valued at $308,086; from the Philippines 12,152 pounds, valued at $12,010; from the United States 4,115 pounds, valued at $15,008, while there was imported from British West Indies but 384 pounds, valued at $1,209. In cut tobacco imports from Great Britain led with 95,398 pounds, valued at $70,511, followed by the United States with 120,629 pounds, valued at $59,087, and China third, 21,772 pounds, valued at $2,889. In tobacco for the manufacture of cigarettes that from Great Britain led with 12,697 pounds, valued at $26,914. Egypt was second with 8,428 pounds, valued at $16,839 and the United States third with 1,262 pounds, valued at $5,853. Under head of "all other manufacturers of tobacco n. e. s." the United States easily led with 113,618 pounds, valued at $47,697; Great Britain 5,120 pounds, valued at $1,933, and Egypt 20 pounds, valued at $58. Under head of "tobacco, pipes of all kinds, pipe mounts, cigar and cigarette holders and cases for same, smokers' sets and cases therefor, and tobacco pouches" the imports were: $217,579 from Great Britain; $43,109 from Austria-Hungary; $84,554 from France; $28,175 from Germany, and $29,596 from the United States.

If the American cigar exporter will be satisfied with a very close margin of profit on the start, he will be able to introduce and increase the sales of American cigars in Canada. This is especially true of the small package cigars—such as are sold in the States 10 cigars for 20 or 25 cents. The writer has seen but few of this style of package of small cigars displayed in the hotels or stores of this district. In these times of prosperity the average Canadian is willing to pay an increased

price for a superior quality of cigar if the clear aroma and rich flavor pleases him.

That the larger introduction and sale of the American domestic cigar is feared is shown by the efforts of tobacco growers and cigar manufacturers in Canada to bring about still further increase of duties on the same.

GERMANY.

QUALITIES AND VARIETIES USED—HOW THE TRADE IS CONDUCTED.

Consul T. J. Albert, of Brunswick, responding to a communication from an American firm in regard to the importation of tobacco into Germany, says:

The manufacturers in Brunswick do not import tobacco directly from the United States or from other foreign countries. The inland tobacco dealers and manufacturers throughout Germany buy their supplies chiefly in Bremen, Hamburg, Amsterdam, and Rotterdam from second hands.

The importers at Bremen and Hamburg purchase on their own account or receive on consignment from other countries tobacco in closed packages, containing different assortments, namely, prime, second, third, etc., in qualities. These packages are sold by the importers to intermediaries, who deal directly with the manufacturer or inland dealer, enabling the latter to buy the sorting he prefers out of the closed package. At Amsterdam and Rotterdam, the importer is accustomed to sell by auction the Sumatra and Java tobacco, which furnish the chief material for wrappers. At these cities the German manufacturer and dealer can select single assortments and buy directly from the importer. For these reasons the auctions at Amsterdam and Rotterdam are well attended by German dealers and manufacturers, while at the same time many buy from second hands.

As to tobacco grown in the United States used in the manufacture of cigars, formerly the chief demand was for the seed leaf, but this demand has lately greatly decreased on account of the consumption of tobacco in the United States, which has advanced prices to such an extent that it does not admit of calculation of profits on purchases.

SOURCES OF SUPPLY.

For the manufacture of smoking and chewing tobacco there is a considerable quantity used from the United States; also stems from tobacco leaves, which are shipped mostly in casks to Bremen. These kinds of tobacco are also purchased at second hand in Bremen. Departures from this rule can only be exceptions. Mexican tobacco is much used in Germany in the manufacture of cigars. Also Brazilian (St. Felix), which supplies largely the demand for fillers and wrappers. Colombian tobacco, especially Carmen and some Ambalema, are also used, and also Rio Grande and Paraguay tobacco. For the manufacture of smoking tobacco Varina leaves in baskets are also used.

Of the West Indian tobacco the German manufacturer not only uses Habana and other Cuba, but considerable quantities of Santo Domingo and Porto Rico, the latter chiefly for smoking. The demand for East Indian tobacco, Sumatra and Java, steadily increases, chiefly for wrappers, but also for fillers. The prices for Sumatra outside wrapper have attained an unprecedented height. The demand of the American manufacturer has had considerable influence upon this rise.

There are a large number of cigar manufacturers in and around Brunswick, and the amount of tobacco consumed by them is important. [Names on file in Bureau of Manufactures.] In communicating with German houses it will always be found advantageous to use the German language.

CUBA.

LAST YEAR'S CROP AND EXPORTS.

According to figures furnished by the Cuban legation at Washington, the production of leaf tobacco in 1905 was 473,617 bales and in 1906 286,288 bales. The exportation of tobacco was as follows:

		1905.	1906.
Leaf	pounds	32,575,793	27,859,483
Cut	do	263,093	373,154
Cigars		227,028,521	256,738,029
Cigarettes	packages	11,829,076	15,643,275

England imported 92,459,687 Cuban cigars in 1906, against 90,505,906 in 1905, while the United States imported 79,483,125 and 64,680,975, respectively.

FOODSTUFFS IN MEXICO.

SUPPLY OF BREADSTUFFS, MEATS, AND DAIRY PRODUCTS.

In answer to inquiries from the United States relative to Mexico's meat and dairy product supplies, Consul James A. Le Roy, of Durango, furnishes the following report:

While the mass of the people of Mexico subsist primarily on tortillas (corn cake) and beans, it is significant that, in the larger centers of population, wherever the workmen are getting higher wages, as a result of the establishment of new industries, they buy fresh meat and flock to the bakeries for wheaten bread. Indeed, the increased consumption of wheat is one of the signs of the times in Mexico. It has become an article of necessity with families in moderate circumstances, as it always has been with the people of wealth; and these two classes are also great consumers of meat. It may be put down as a rule that, while Mexico is still a country dependent primarily upon corn and beans, all Mexicans, who can afford to do so, daily eat a large amount of meat.

MEAT AND MEAT PRODUCTS.

It can not be expected that there will be any market for fresh meats from the United States, as cattle raising is a pursuit that is followed in nearly all parts of Mexico. There is also a duty of 10 cents Mexican the net kilo (about 2¼ cents in United States currency per pound avoirdupois) on fresh meat. Except for occasional entries, such shipments from the United States to Mexico are neglible in amount. The northern part of Mexico, in fact, is coming to be a considerable source of supply of cattle on the hoof for the United States. Attention has frequently been called to the increasing demand here for American shorthorn bulls. The more progressive ranchmen everywhere in Mexico are "grading up" the stock on their ranges. This applies also,

in somewhat lesser degree, to sheep, horses and mules. Almost all the fresh meat consumed, either on the big ranches or in the cities, where it is purchased in the morning markets, is from cattle killed the day before.

In the capital, and in some of the other cities, there are small butcher shops, first started to cater to the trade of American residents, which have facilities for keeping meat several days on ice. The industry of refrigerating beef, as it is known in the United States, is practically unknown in Mexico. Lately it has been said that one firm would attempt it in Mexico City; but there will be no shipping of refrigerated beef into Mexico while freight rates remain as high as they are, or until the taste of nearly all the meat eaters is educated not to demand meat just killed.

SMOKED, SALTED, AND CANNED MEATS.

Of the comparatively small imports of smoked and salted meats, nearly 90 per cent comes from the United States, Cuba being next; of sausages, hams, etc., 75 per cent are imported from the United States, the rest coming from Germany, Spain, France, and Italy in the order named; in dry, salted, smoked, and pickled fish Norway stands first, the United States second, and China third. In canned meats and fish of all kinds, Spain stands first with $297,000 out of a total of $640,000 in Mexican silver in 1904; the United States being second, with $209,000 and France third with $75,000, the only other countries contributing over $10,000 being Germany, Norway, and Great Britain.

In the imports of preserved meats and fish of all kinds Spain comes first and the United States second. Spain's predominance over the United States in this respect (for no other country approaches the total of the United States) is due to Spaniards, as the grocery business is mainly in their hands. This has helped to cultivate a taste for Spanish canned meats as well as for many grades of Spanish wines, Spanish preserves, and other sweets. In hams, bacon, etc., American exporters already control the market, but, in regard to canned meats, they should consult the tastes of the country more than has been done, perhaps, and put forward the particular lines for which trade is already established.

There can not, under present conditions, be a great market for canned meats in Mexico. Their price puts them wholly out of the reach of the masses of the people, even if they ever considered their purchase. Fresh meat is still a luxury with them, and they live in a grazing country. Pork, far more than beef or mutton, is the poor man's meat in Mexico, though this is more conspicuously the case in certain regions than in others. Lard is a local product everywhere, on a small or large scale, and forms one of the items most actively bartered in the town markets. It is used by all classes in everyday cooking and in the preparation of a very large proportion of their dishes, yet lard is imported from the United States in considerable quantity.

COTTON-SEED PRODUCTS.

The competition which the Mexican packers complain of most is with the substitutes for lard—cottolene, lardine, etc.—the imports of which have rapidly increased within the last few years. The duty on lard is 12 cents silver per gross kilogram, or 2.7 cents United States

currency, per pound, gross weight; and no separate duty has been provided for substitutes. Virtually all the lard imported comes from the United States. Mexico raises a good part of the cotton consumed in the country, and cotton-seed oil is a valuable by-product of the cotton-growing and manufacturing regions. The importance of this oil and of its by-products, in the various uses to which they may be put, has as yet, however, only been partly realized in Mexico. The oil is used chiefly for soap making, but cotton-seed cake is exported to some extent instead of being used to fatten stock. As already shown, such products come from the United States to Mexico, though not to any great extent; oleo and oleomargarine importations are in still less quantity.

DAIRY PRODUCTS.

Mexico can not be called a butter-consuming country, as bread is commonly eaten without butter. Lard is its substitute to a great extent, where it has a substitute. Nevertheless the use of butter is increasing among Mexicans themselves, and the foreign population, especially the Americans, constitute a growing demand for butter that does not seem to be met by the starting of small dairy farms near cities, mining camps, etc. More than three-fourths of the butter imported comes from the United States, Spain and Denmark supplying nearly all the remainder. It is imported mainly in cans, but the importation of fresh butter in rolls from the dairies in the lower Mississippi Valley region has been steadily increasing.

The imports of American cheese and milk show constant gains, but in the nature of things the market for these products can not greatly increase.

EXPORTS OF FOODSTUFFS TO MEXICO.

The following statement, prepared in the Bureau of Manufactures, shows the exports of breadstuffs, provisions, and dairy products from the United States to Mexico during the calendar year 1906. In a few cases where the exports for 1906 were not available statistics for 1905 are given.

Articles.	Value.	Articles.	Value.
Breadstuffs:		Meat and meat products:	
Barley	$61,279	Bacon	$47,565
Bread and biscuit	41,559	Hams	99,792
Corn	55,184	Canned beef	28,077
Preparations of table food	99,131	Cans other than beef	81,657
Wheat	1,536,587	Lard	547,176
Wheat flour	118,443	Lard compound	217,321
All other	39,967	Oleomargarine	24,458
		Tallow	22,415
Total	1,952,150	All other meat products	81,152
		Total	1,149,613
Dairy products:			
Butter	62,806	Total exports of all foodstuffs	3,303,655
Cheese	43,454		
Milk	95,632		
Total	201,892		

JAPANESE PEANUT CROP.

SOMEWHAT BETTER YIELD THAN USUAL—METHODS OF CULTURE.

A report from Vice-Consul-General E. G. Babbitt, of Yokohama, on the peanut crop of Japan, will prove of value, as the American yield of peanuts last year was only half that of 1905. Mr. Babbitt writes:

The crop for 1906 is somewhat above the average in quality and quantity, and is estimated at 146,000,000 pounds. The different provinces gave the following yields in pounds: Chiba and Ibaragi, 5,500,000; Yenshiu and Sanshiu, 7,000,000; Soshiu, 300,000; Suruga, 300,000; Chugoku, 500,000, and Kiushiu, 1,000,000. The crops from Chugoku and Kiushiu are almost entirely devoted to home consumption. The same can be said of the crop from Formosa. The harvests are inspected by the guilds of the different provinces before being sold for export. The total exportation of peanuts in 1904 amounted to 4,315,814 kin (kin=1⅓ pounds), valued at $144,728, of which the United States was the leading purchaser, taking $91,293 worth, and Hongkong $33,712 worth. In 1905 the exports were 3,147,422 kin, valued at $129,869, of which the United States took $98,470 worth and Canada $13,341 worth, Hongkong almost dropping out of the market.

The Japanese exports of peanuts for the first ten months of 1906, ending October 31, amounted to $103,988, compared with $118,006 exports for corresponding period of 1905. While the exports have decreased since 1903, when the total export was 7,565,977 kin, the proportion shipped to the United States shows a slight increase in 1905 over 1904, and a large increase over 1903—1,333,437 kin having been shipped to the United States in 1905.

CULTURAL AND SELLING METHODS.

The planting of peanuts in Japan is usually done in May, and the cultivation is carried on by farmers in small patches through the various peanut-growing districts, there being no extensive plantations of this crop. The harvesting takes place the latter part of August, and the farmers being generally busy at that time, the nuts are stored as harvested, and allowed to remain untouched for a month or so, when they are washed with water. Up to this last season it was customary to further wash or bleach them by the use of chemicals, but the association, or guild, of peanut merchants have decided to abandon this practice and to sell the nuts as received from the growers.

The quality, as well as appearance, differs considerably in the various sections, owing largely to the kind of soil in which grown. Very few, if any, purchases for export are made direct from the farmers, they selling to brokers or merchants, who in turn deposit the nuts in godowns of country banks as security for advances, and then sell to agents or shippers at the principal ports.

If the demand in any one season is good, and the farmers realize a good profit, they will plant an increased area the following season. For the past several seasons the demand has been good, the crops of good quality, and the quantity produced is increasing yearly.

The customs returns show a falling off in the export trade, but the increasing demand for home consumption and for manufacture into oil keeps the market steady. Considerable quantities go into the manufacture of oil, largely used by Chinese here and for export to China.

WHEN TO GET THE BEST GRADES.

The better grades are usually selected by the earlier buyers, so that the best are to be had from December to March; it would be very difficult to procure the same quality at different times during the year, particularly as the owners can seldom be induced to give options awaiting orders, or hold their stocks for any length of time, preferring cash payments and quick delivery.

In selecting for export the smaller nuts are thrown out and pressed for oil. This grade sells at $2 to $2.25 per 100 pounds. For the better grades the prices at Yokohama and Kobe (which ship practically all the peanuts exported; the trade of all other ports amounting to little more than $1,000) for the present season are $3 to $3.50 per 100 pounds. These prices are slightly higher than those of last season, and the farmers are realizing about 25 cents per picul (133 pounds) over last season's prices. Further, the price is just now rising as the quality available for export decreases. Shelled peanuts are not sold to any great extent, but it frequently happens that while the shells have a poor appearance, the nuts are good and are therefore sold, shelled, at an advance of 25 to 30 per cent.

FARM CROPS OF GERMANY.

LAST YEAR'S ABUNDANCE EXPECTED TO INCREASE MEAT PRODUCTION.

Consul-General A. W. Thackara, of Berlin, furnishes official statistics recently published by the imperial statistical bureau, which indicate that the production in 1906 of the principal farm crops of Germany, in metric tons of 2,204.6 pounds each, with comparative figures for the two previous years, was as follows:

Character.	1906.	1905.	1904.
	Metric tons.	*Metric tons.*	*Metric tons.*
Wheat	3,939,963	3,699,882	3,804,828
Rye	9,625,738	9,606,827	10,060,762
Summer barley	3,111,309	2,921,953	2,948,184
Potatoes	42,936,702	48,323,353	36,287,192
Clover hay	11,912,726	9,505,132	7,749,790
Lucern	1,698,998	1,459,750	1,225,192
Meadow hay	28,732,930	26,265,417	21,507,119
Oats	8,431,739	6,546,502	6,936,003

It will be seen from these statistics that the farm crops of 1906 were as a rule larger than those of the two preceding years. The potato crop, was smaller than that of 1905, in which year, however, the crop of potatoes was one of the greatest ever known. The amount of diseased potatoes in 1906—1,669,059 tons, or 3.9 per cent of the production—was less than in 1905, in which year it was 3,281,265 tons, or 6.8 per cent. The crops of oats and other fodder made a specially good showing. The oat production was nearly 2,000,000

tons greater than in 1905, clover hay 2,500,000, and meadow hay 2,500,000 tons. Wheat showed an increase of nearly 2,500,000 tons.

The acreage planted, the total production in metric tons, the production in bushels per acre of the cereals and potatoes based upon a weight per bushel of 60 pounds, of rye of 56 pounds, of barley of 48 pounds, of oats of 32 pounds, of potatoes of 60 pounds, and the production of hay in metric tons per acre were as follows:

Character.	Acreage planted.	Production.	Production per acre.
	Acres.	*Tons.*	*Bushels.*
Winter wheat	4,333,618	8,570,807	30½
Summer wheat	450,305	368,756	30
Winter rye	14,759,324	9,473,479	25½
Summer rye	317,920	152,259	18.8
Summer barley	4,063,654	3,111,309	35
Oats	10,431,592	8,431,379	55.8
Potatoes	8,159,389	42,936,702	19.34
			Tons.
Clover	5,126,662	11,912,726	5.74
Lucern	596,123	1,698,998	7.05
Meadow hay, irrigated	1,871,132	3,039,455	5.28
Meadow hay, other	13,336,271	25,693,475	4.76

The abundance of fodder harvested in 1906, the probable increased use of potatoes for feeding animals, owing to the limitation of the alcohol production during the coming campaign by the alcohol ring, and the concessions made in the present tariff of one-half duties on grain imports into Germany in the sheaf, are factors which it is hoped by the German people will tend to increase the production of home cattle and thus lower the high prices of meat which are now prevailing.

SOIL PRODUCTS OF INDIA.

GOVERNMENTAL STIMULATION OF AGRICULTURE.

Consul-General William H. Michael tells of the efforts being made in India to improve the agricultural conditions there. He writes from Calcutta:

The hill country about Bangalore, in Mysore State, southeast part of India, is undoubtedly destined to become a great fruit region. Mr. Paul, an expert orchard man from Australia, located near Bangalore a few years ago and planted an experimental orchard. His effort was successful in propagating all manner of Australian fruits and a company was organized recently to engage in raising fruits, and 2,000 shares of $365 each were taken within a few days. There is not to be found a more salubrious climate anywhere than that of Bangalore district, which has become very popular as a summer resort.

INDIGO IN BENGAL—TANNING MATERIAL—MULBERRY PLANTATIONS.

The Bengal government has been lending itself to the revival of the indigo industry within the province. The research station at Sirsa is reported to be now fully equipped and the buildings have been completed. There is an European expert staff conducting the work at the station and a special advisory committee of six members administers the government grant of $16,500. It is officially reported that very encouraging results continue to be obtained from Java-Natal

seed and that so far the prediction of deterioration has been falsified. A well-organized system of seed farms has been established and most of the planters, it is said, are going in for the Java-Natal seed with more or less enthusiasm. So far the prospect of the success is said to be favorable.

The Punjab indigo crop for 1906 covers 62,300 acres and the yield of seed, it is estimated, will be 6,455,200 pounds, and of dye 127,320 pounds.

Kino is looked upon in India as a very valuable tanning material for tanning leather and it is thought it will become of large commercial value. The extract may be had in large quantities in India at comparatively low cost. It has not come into general use because, as formerly prepared, it made the leather too red, but that has been overcome by scientific treatment.

Mulberry plantations are being opened in India with a view to enlarging the propagation of the silkworm, as well as to make the mulberry gardens a distributing center from which cuttings and young plants may be distributed to the public. In order to induce individuals to plant mulberry plantations in the Khasia Hills, where the mulberry does well, prizes are offered.

NEW AGRICULTURAL COLLEGES AND EXPERIMENTS.

Over 140 acres of land has been acquired at a cost of $18,733 at Ganeshkhind in Poona for the site of the new Bombay Agricultural College. About $175,000 are to be expended on the buildings, which are to comprise a college, a chemical and physical laboratory, and residences of professors. Work on the buildings has commenced and the area to form the college farm is already being utilized for the practical instruction of the students.

Another of the new agricultural stations in eastern Bengal and Assam is that at Rangpur, which is intended mainly for the production of tobacco suitable for the manufacture of cigars and cigarettes. The Rajshahi station is conducting promising experiments with a new fiber (malancha). The attempts to breed English pigs at the Upper Shillong government agricultural station for the Kashi Hills are being abandoned as failures.

The new special jute farms recently started by the Bengal provincial department have been located in the following important jute districts: Purnea, Berhampur, Krishnagar, and Chinsura, suitable sites having been selected for them.

The Madras forest department will sell sometime in March next 160,000 pounds of sandal wood. This wood was raised in the Salem district, Madras Province.

The forest department of eastern Bengal and Assam are disposing of the rubber output of the government rubber plantations of Charduar and Kulsi during the season of 1906–7, which is now on. The yield from the Charduar plantation is estimated at about 10,000 pounds and from Kulsi at about 3,200 pounds. It is anticipated that the whole of the rubber yielded by the plantations will be ready for delivery to purchasers by the end of March next, that from Charduar being delivered f. o. b. at Tezpur and from Kulsi f. o. b. at Palashbari.

BRAZILIAN PRODUCTS.

GOVERNMENT AID TOWARD HELPING THEIR SALE ABROAD.

The Brazilian budget for 1907 appropriates a considerable sum for the promotion of the sale of the Republic's soil products. The budget authorizes the expenditure of 4,000,000 milreis gold (gold milreis equals 54.6 cents) to increase the consumption of different Brazilian agricultural products in foreign countries and to establish prizes and subsidies. The provisions are:

The subsidies will be granted to companies and private persons who establish at their own expense, in places where houses already exist for the sale of coffee in the bean, roasting houses where the ground coffee may be retailed or sold prepared as in the cafés of this capital; establish houses where coffee may be sold ground or already prepared in these places or their neighborhood, the coffee to be bought only in the roasting houses mentioned above; establish such houses in places where houses do not exist for the sale of this product, especially in small townships, with small roasting houses attached where the coffee may be sold ready ground or prepared.

With regard to other products the Government will apply the same system of subsidies and will cause samples to be on view continually in the houses mentioned, these samples supplied by Government or private individuals to be of good marketable commodities such as mace, cocoa, sugar, tobacco, and preparations made from the same, these to be accompanied with a short notice as to their origin, price, and any other information which may increase their consumption.

The prizes will be awarded as an encouragement to such companies or private persons who at the end of each six months (June to December) can prove to the judge appointed by Government that in view of the results obtained they have actively and with zeal increased the consumption of any of these products. The Government will establish general rules and, so far as is possible, will fix the maximum price at which the products may be sold in the different countries by the subsidized houses. All the products must be prepared and sold without any adulteration.

The Brazilian consulates in the different countries where the Government deems it expedient to initiate and maintain this propaganda shall forward at the end of each six months a detailed report upon the subsidized establishments and their development, showing how far they are fulfilling their purpose.

Besides the measures indicated the Government may employ others, always of a commercial character, and may grant a maximum reduction of 20 per cent in import duty on goods not capable of being produced in Brazil and coming from countries which by agreement or commercial treaties grant for a space of not less than three years entry or a considerable reduction to Brazilian products.

STOCK RAISING.

CAPITALISTS HAVE CONCESSION FOR PACKING ESTABLISHMENT.

American stockmen who are looking to Brazil for broadening opportunities are advised by Consul-General G. E. Anderson, of Rio de Janeiro, as to conditions there, as follows:

There is no federal government grazing land now available. Years ago wild land was given to those who explored it, vast tracts being taken possession of by men who had no other interests than to hold the land for sale. The several state governments own considerable land. Persons desiring to acquire such for stock raising should address the ministers of the interior at the following state capitals: Rio Grande do Sul, Santa Catharina, Parana, and Mina Geraes. Letters should be in the Portuguese language, if possible, and contain some evidence

of active intention and good faith. There are vast areas in Brazil suitable for stock raising, but with no shipping facilities, such operations should be confined to tidewater regions.

The matter of markets is important. The price of beef in Rio de Janeiro is about the same as in the United States, but it costs the producer in Brazil much more to get his live stock to market. Moreover, the local markets for beef are already well supplied, and there is little sales outlet for greater production at present. With swine the case is otherwise. The live-stock industry of the Republic waits upon the development of an adequate packing system. This, with cold storage ships for Europe, would give an immense stimulus to live stock production in Brazil. There is now a concession in the hands of Brazilians who are negotiating with American capitalists with a view of establishing a modern packing plant in Rio de Janeiro. The improvements in transportation are constant, and when this packing plant is realized there will be immense opportunities for Brazil's live-stock industry. In the meanwhile there are some portions of the live-stock country so located that stock can be shipped alive to Europe and up and down the coast. Land in such localities is much more costly, but I believe that it is still cheap enough to justify investment by practical stockmen.

CUMMIN SEED.

SUPERIOR QUALITY OF MALTA'S PRODUCT.

Consul John H. Grout, of Valetta, reports that Malta raises a very fine grade of cummin seed, for which those islands have been noted for many years. He writes:

As far back as 1745 a noted French writer upon agricultural topics referred to Malta as being an exporter of one of the best grades of cummin seed known. At the present day the seed is raised solely for exportation, not being in demand for local use. Much of it is consumed in Germany, France, and England. Two-thirds of the quantity exported goes to Germany. Occasionally fair-sized orders are filled here for the United States, being obtained through German houses. The principal grade exported is that known as the clean seed, which seems to give so much satisfaction that it is constantly in demand. American houses using cummin seed might deal to better advantage if business were done directly with the Maltese merchants. The past season Morocco has not produced either in grade or quantity anywhere near its normal amount of cummin seed. As prices in that market for this article are high, purchasers must, at least for the present, look elsewhere for their supplies. On the other hand, the Malta crop is above normal conditions, and local farmers are about to take advantage of the decrease elsewhere by planting larger crops for the coming season. It is said that the price per cantara (175 pounds) in the market of Morocco at present is $34.06. The price is much less in Malta.

COTTON GROWING.

MEXICO.

ANOTHER LARGE INCREASE—COMMERCIAL SITUATION.

Consul J. A. Le Roy, of Durango, reports that the cotton crop of Mexico, or at least of the principal cotton belt of Mexico (that centering about Gomez Palacio, in the State of Durango), has been an unusually large one. The consul continues:

Great difficulty was experienced in getting and keeping the required number of laborers to gather the crop, and no exact estimates of the amount gathered seem to be available. Labor in this branch of agriculture has been quite demoralized by the constant increase of wages, till they have reached such a point that laborers in the cotton belt will hardly undertake any other sort of work in the season and will work only a part of the time in the cotton fields. At the rates now paid laborers can earn far more than their needs require, and not having the habit of saving they take advantage of the opportunity to lie idle whenever they so desire.

PLANS OF SPECULATORS.

The speculators in cotton seem to have held a good part of last year's crop, hoping to send prices still higher. They were left as a result with a large amount on their hands in the face of a lower price during the year 1906. As the 1906 crop also promised to be a record breaker, the speculators sought last fall to get the planters of the cotton belt to join them in a pool to hold up the prices, the planters to place their cotton only through the "association," and so much at a time. The real object aimed at by the speculators was to get rid of their accumulations without a loss. It is very doubtful whether the pool will be realized, though various meetings have been held to that end. The price at which cotton may be obtained from the United States (which is ordinarily the factor determining the price at which cotton raised in Mexico is sold) will interfere with this plan, unless the planters should very uniformly hold together; and they have no object in doing so, except the rather doubtful prospect of being able thus to sell their present crop at higher prices.

SUPPLYING HOME DEMAND.

Apparently the proposition to raise the freight rate on baled cotton had its origin in this same effort to hold up the price of Mexican home-grown cotton beyond what it would be as fixed by the price of imported American cotton. The aim of the Mexican cotton grower is to supply the home market entirely, and some are confidently predicting that this will be done within a few years. In spite, however, of the great increase in the crops of the past few years it seems very improbable that this will be done. The past few seasons have been unusually wet seasons, and a return of very dry or ordinarily wet seasons would speedily reduce the product, limiting the area planted. The increase in product has, in the second place, not been much if any more than the increase in the home demand. Moreover, there have been lately serious strikes in the principal cotton manufacturing cities, and the manufacturers will be contesting any effort to raise

the price of raw cotton unduly at their expense, unless the margin of protection against foreign cotton manufactures is raised.

ASIA.

RESULTS IN KOREA.

American cotton seed planted in the experimental grounds of Korea, 175 acres being cultivated, yielded the past season 100 bales, weighing 50,000 pounds, says the British Board of Trade Journal, which adds:

The fiber is said to be fine and soft, with exceptional luster and well suited for mixture in the spinning of fine yarn. It is valued at $11.29 per 100 pounds. The people interested hope to produce 1,000 bales next season and 10,000 the year following. Estimates give 175,000 as the possible number of acres of cotton lands in Korea, and the yearly yield of these as 100,000 bales of 500 pounds each. Experiments made in 1906 resulted in 400 pounds to each acre. The land experimented on was well and carefully cultivated by intelligent Korean coolies. No such intense cultivation could be carried out on a very large scale, still, if Japan can get 100,000 bales of upland cotton per annum from Korea, it means just that much less in her purchases in the United States. A sample of cotton grown in the Ottoman Empire, part of 400 pounds picked on less than an acre, is on exhibition in London. The land on which it grew was not cultivated last year, the cotton growing on plants left over from the previous season. One hundred acres near where this sample grew have been prepared for cotton. These were to be planted during the month of February.

"SPENCE" COTTON TREE.

The cotton tree, with which Mr. Spence's name and activities are associated, turns out to be fairly common over a wide area of India says the London Commercial Intelligence, which adds: "The capabilities of the tree have been somewhat overrated by the enthusiastic Mr. Spence, but it must be added that it is claimed that the bolls are very numerous. Professor Gammie, writing about the tree, does not touch on its economic value; but his definition seems to establish the fact that it is a variety quite distinct from the cotton trees hitherto experimented with in India."

ARGENTINA SEEKS A SUPPLY.

Consul E. H. Thompson reports from Progreso, under date of December 29, 1906, that Juan Guelfeire, consul-general of Mexico to the Argentine Republic, is now in Yucatan for the avowed purpose of making a direct connection between the Yucatan producers and the Argentine consumers of the sisal fiber, and that he has been cordially received by the chamber of commerce and agriculture and by the leading sisal planters.

SILK FLOSS.

FIBER FROM SEED PODS OF POCHOTE TREE.

Vice-Consul R. M. Stadden, of Manzanillo, reports on the cultivation of the pochote tree, which produces a fine fiber known in Mexico as silk floss. He writes:

Silk floss is known here by the name of "pochote." It is produced by a tree called pochote, that grows wild along this coast, both on the lowlands and on the mountains. The tree is of very rapid growth, and the wood is white and soft. It is reproduced from the seed, also by planting limbs in the ground, at the beginning of the wet season, which take root and grow into large trees in a few years. Trees that are 4 feet in diameter at the trunk, and 50 feet high, with branches that spread out to 60 or 70 feet across, are not unusual. In January the tree blooms, giving a white bell-shaped flower. When the flower falls, a pod is formed that contains the pochote fiber mixed together with seeds. In March when the pods begin to dry, but before thoroughly dry, they are gathered and placed in bins or bags, for if they remain on the tree until dry, the pods break open, the seeds fall, and the light fiber is blown away. The second year after planting the fiber is produced in quantities according to the size of the tree. The largest trees produce about 15 pounds each per year.

Only a very small quantity is gathered, as there is no demand for it, except the little that is used for filling bed pillows. It has no regular price, but has been sold as cheap as about 2 cents United States gold per pound. The pochote fiber is about as fine as silk, and has a staple like cotton. [A sample of this fiber can be seen at the Bureau of Manufactures.]

NORWAY.

IMPORTS OF COTTON AND TOBACCO.

Consul-General Henry Bordewich, of Christiania, writes that the imports of cotton into Norway during 1905, according to the latest official statistics obtainable, were 3,026,210 kilograms (1 kilogram = 2.20 pounds).

Of this only 54,700 kilograms came direct from the United States. About one-half of the total import came from Germany, 569,120 kilograms from Great Britain, the remainder from Denmark, the Netherlands, Belgium, and France. There are no jobbing houses in the country; the few cotton-mill proprietors import their raw product themselves.

The imports of cotton yarns and fabrics and of other cotton goods were as follows: Yarn, 1,532,584 kilograms; fabrics, 2,377,310 kilograms; and other cotton goods, 398,007 kilograms. The value of these articles was $3,126,500. Only a very small fraction of these goods came from the United States. A market can be secured here by sending over a capable man with a line of samples. The people who control the trade in cotton goods in Norway have their old-time tried connections in Great Britain and other European countries. It will require both time and exertion to find openings for American goods,

but if prices and quality are able to bear competition there is no good reason why a part of the trade, at least, should not be secured by the American manufacturers.

The import of leaf tobacco in 1905 was 1,341,230 kilograms, valued at $431,000. Of this, about 252,290 kilograms came direct from the United States, the balance largely from Germany, but the bulk of all tobacco imported is undoubtedly of American origin. [Consul-General Bordewich forwarded a list of the principal cotton-mill owners, importers of cotton fabrics, and importers of tobacco of Norway, which can be consulted by those interested at the Bureau of Manufactures.]

AUSTRALIA.

DUTIES AND REGULATIONS AS TO IMPORTED CONFECTIONERY.

Consul-General John P. Bray, of Melbourne, forwards a list of the dealers in confectionery in his consular district. [On file at the Bureau of Manufactures.] He also writes as follows regarding the duties levied on confectionery:

The customs duties on confectionery supplies, such as crystalized violets and rose pistals, is 4 cents per pound. Flavoring essences (nonspirituous) are dutiable at 15 per cent ad valorem. The spirituous essences are dutiable according to their spirituous contents from 84 cents per gallon for not more than 25 per cent of proof spirit up to $3.40 for 75 per cent and over.

In Victoria the pure food act fixes the standard for confectionery as follows: Confectionery shall contain no paraffin, nor any foreign mineral substance, nor any injurious coloring agent, nor any chloroform or other injurious flavoring agent, nor any drug concerning which any restrictive regulation is in force, nor any glucose other than standard glucose. The use of saccharin, saxin, dulcin, glucin, or any synthetic sweetening substance in the preparation of confectionery or of any article of food (except diabetic foods or fermented alcoholic beverages containing less than 2 per cent proof spirit) is prohibited.

CHEESE MAKING.

Consul-General Bray also reports that the government of the State of Victoria, with the view of improving the exports of cheese, is making arrangements through the department of agriculture to hold classes for practical instruction in cheese making and the management of cheese factories, during the winter months. It is intended to hold classes within easy distance of Melbourne, and a cheese expert has been engaged to conduct them, a fee of $5.10 being charged for the course.

INDIA.

EXPERIMENTS IN CUTTING JUTE.

Consul-General William H. Michael, of Calcutta, calls attention to the results of the experiments in the cutting of jute plants at different stages of growth at the Burdwan government farm in India.

Cuttings were made at four stages. The fiber from plants cut in flower gave the heavier body of best value, being priced at $3.18 per 80 pounds; next came fiber obtained from plants cut in bud and from those cut when fruits had set; but fiber from plants cut before budding had the best color, though they were priced the lowest. In the manurial experiments at the farm the fiber obtained from plots manured with cow dung gave the best result, though the color of the fiber was reported poor.

RUBBER-CULTURE AID.

BRITISH EFFORTS TO PROMOTE THE INDUSTRY IN WEST AFRICA.

Consul Albert Halstead, of Birmingham, transmits the following report concerning the interest being taken by the British Government in the promotion of rubber in its West African possessions:

Not only is the British Government interested in aiding the British Cotton Growing Association to grow cotton in those British colonies whose climate and soil are suitable for the purpose, so that the British spinners may be as independent as possible of foreign-grown cotton, but it is, as a practical business policy, using its influence and giving such assistance as it can to an effort to produce other raw materials in British territory. In the Birmingham Post is the following letter from London which indicates the desire of the Colonial Office to promote the cultivation of rubber in the West African colonies:

With its consent their governors have entered into communication with leading chambers of commerce here with a view to the improvement of the methods employed in growing and preparing rubber. As a result, the governor of Southern Nigeria is defraying the cost of training planters, and it is expected that the governor of Northern Nigeria will shortly follow the example, while samples which have arrived in this country from Sierra Leone have been favorably reported on by experts. In view of the greatly increased demand for the commodity for commercial purposes, the authorities at Whitehall are hopeful that its cultivation in British possessions may be largely extended, and the somewhat experimental steps now being taken in West Africa are being, therefore, watched with greater interest.

FRENCH MILLING.

SMALL CHANCE FOR AMERICAN FLOUR.

Consul-General R. P. Skinner, of Marseille, reports that the French milling industry is highly protected, and there is little prospect that Americans can build up any permanent flour trade in France for the following reasons:

The rate of duty on imported flours is $2.60 per 220 pounds, and this has had the effect of holding importations down to a low figure. The total amount received from all countries in 1905 was 16,755 tons, of which 4,418 tons were from the French colony of Algeria, and 6,008 tons from Hungary. These imported flours were especially rich in gluten. Such importations as are reported were due to special causes. There is, however, a considerable Mediterranean trade, which is handled by Marseille firms, and it is not impossible that business might be created by correspondence with such houses. [Names of such on

file at the Bureau of Manufactures.] The Mediterranean market requires chiefly very low-grade flours of the qualities which are ordinarily by-products resulting from the manufacture of semolina in this city.

Grain Crops of the United States.

According to the estimate furnished by the Department of Agriculture, the grain crop of the United States for the three mentioned years was as follows:

Kinds.	1904.	1905.	1906.
	Bushels.	*Bushels.*	*Bushels.*
Barley	139,749,000	136,651,000	158,916,000
Buckwheat	15,008,000	14,585,000	14,642,000
Corn	2,467,480,000	2,707,993,000	2,927,416,000
Oats	894,600,000	953,200,000	964,905,000
Rye	27,242,000	27,616,000	33,374,000
Wheat	552,416,000	692,979,000	735,261,000

Crop Productions of Java.

According to a report furnished by Consul B. S. Rairden, of Batavia, the production of sugar in Java in 1905 amounted to 1,110,469 tons, an increase of 7,598 tons over 1904 and 120,363 tons over 1903. The amount of quinine offered for public sale at Batavia during 1905 was 130,699 pounds, of which 30,802 pounds were sold at an average price of $3.15 per pound. The total production of coffee in Java and Sumatra in 1905 was 58,909,110 pounds, against 47,757,248 pounds in 1904. Of the 1905 crop, 41,795,856 pounds were produced by private parties and 17,113,254 pounds by the government.

Sheep Raising in Chile.

Consul Alfred A. Winslow, of Valparaiso, reports that increasing attention is being given to the raising of sheep in the southern parts of Chile and Argentina. A very fine quality of wool is grown there and sheep thrive. During the past year many of the stronger interests have built extensive sheds in which to shelter their flocks during the winters, thus strengthening the sheep and increasing the fleece. A move is on foot to ship mutton in cold storage to Europe on an extensive scale.

WAGES AND EXPENSES.

INCREASED COST OF LIVING IN EUROPE.

FRANCE.

RATES COMPARED WITH AMERICAN—MUNICIPAL TAXES ON FOOD AND WATER.

Consul Louis Goldschmidt, of Nantes, under date of January 28, transmits the following report covering the wages and food prices in Nantes, which, the consul says, may be considered a city of average prosperity, as compared with other cities in France and in Europe generally:

Considerable has been published lately in America concerning the increased cost of living and the comparative pay of labor in the United States. In some cases the writers have tried to demonstrate that it is only in the United States that the cost of articles of daily consumption has increased to any considerable degree. Statements are also frequently made to the effect that, although the wage of the laboring classes abroad is usually lower than the wage of the same class of labor in the United States, nevertheless living abroad is so much cheaper that the laboring class is just as happy and just as prosperous as the American laborer. In demonstrating that this is not the fact, statistics will be given, as far as they have been possible to obtain, of (1) the wages paid to various labor classes in Nantes; (2) the cost of articles of food, fuel, light, etc., entering seriously into the daily consumption of laboring people; and (3) the cost of rent of rooms or apartments.

The wages paid to the various classes of organized labor in this city, which may be considered a city of average prosperity in France and Europe, are given herewith as furnished to me by the secretary of the Nantes Labor Exchange. It is fair to assume that the maximum pay is given to organized labor; in fact, many classes of labor not organized are paid much lower wages than are here given.

Labor.	Wages.	Labor.	Wages.
Per day of ten hours.		*Per day of ten hours*—Continued.	
Adjusters of machinery	$1.00 to $1.20	Electricians (installing lighting)	$1.00 to $1.40
Blacksmiths	1.10 to 1.40	Factory laborers	.75 to .90
Blacksmiths' helpers	.95	Lithographic printers	1.40 to 1.60
Bookbinders	1.00 to 1.20	Locksmiths	.90 to 1.10
Carpenters, timberworkers	1.10 to 1.30	Machine tenders (labor saving)	.90 to 1.00
Carpenters, housework	.95 to 1.00	Masons and marble-workers	.90 to 1.00
Dock laborers	1.10	Molders	1.00 to 1.30
Chair makers, piecework	.80 to 1.00	Paperhangers, idle about four months in the year	1.60
Coopers, piecework	.90 to 1.00		

Labor.	Wages.
Per day of ten hours—Continued.	
House painters	$0.90 to $1.00
Pattern makers	1.10 to 1.30
Plasterers	1.00 to 1.20
Saw tenders, power saws	.80 to .90
Sculptors in stone for building	1.10 to 1.60
Shoemakers	.70 to 1.00
Slaters and roofers	1.10 to 1.30
Stonecutters	1.00
Sugar refiners:	
Men	.75 to .80
Women	.40 to .60
Tanners and curriers	.90 to 1.00
Typesetters	1.30 to 1.80
Wagon smiths	1.20 to 1.60
Wheelrights	.90 to 1.00
Wagon makers (woodworkers)	1.00 to 1.20
Wagon painters	1.00
Willow and rattan workers	.60 to 1.00
Per week.	
Bakers	6.00 to 8.40
Per month.	
Hair dressers, with board and room	5.00 to 12.00
Per month—Continued.	
Draftsmen, industrial	$30.00 to $60.00
Engineers (stationary engines)	26.00 to 32.00
Railway engineers (engine drivers)	36.00 to 60.00
Railway firemen	24.00 to 34.00
Truckmen	18.00 to 24.00
Household service, with board and lodging:	
Women servants	4.00 to 6.00
Women cooks, average	6.00 to 7.00
Man servants, trained	5.00 to 10.00
Store employees:	
Men—	
First year after apprenticeship	15.00
Second year after apprenticeship	20.00
May eventually reach	30.00
Women—	
Second year after apprenticeship	10.00
Third year after apprenticeship	15.00
May eventually reach	25.00

In nearly all the foregoing trades and employments an apprenticeship of two years, without pay, must be served. Domestic labor in the rural districts is from 25 to 40 per cent less than the foregoing rates. In establishments where dressmaking and tailoring for women are done the seamstresses are paid, after two years' apprenticeship without pay, a daily wage of from 15 to 20 cents, while exceptional workers may, after a number of years, reach 50 cents; foot-machine workers, 60 cents; forewomen, $1; women cutters and fitters, $60 per month; men cutters, $80 per month.

COST OF FOOD.

Prices of foodstuffs in Nantes per one-half kilogram (1 1/10 pounds) run as follows in American cents:

Beef for soup, 12 to 18, sirloin, 30, and tenderloin, 45; veal, 20 to 24; pork, fresh, 18 to 22, salted, 18 to 21, sausage, 24; ham, 25, or cooked, 35; horse meat for soup, 6, steak, 16, and tenderloin, 28; lard, 16; butter, according to season, 25 to 44; cheese, common, 24, Swiss, 28, and French, 20; fish, salted, 8, herrings, salted, 16, and smoked, per dozen, 22; coffee, common quality, 35; coffee, better quality, 40 to 50; chicory, 7; sugar, common, 5½ to 6, sugar, lump, 6½ to 9; tea, 60 to 80; chocolate (cocoa and sugar), 25; prunes, dried, 25; potatoes, 1½; macaroni and similar pastes, 7 to 20; rice, 7 to 10; tapioca, 24; flour, common, 4; salt, common coarse, 3, refined for table, 4; beans, dried, 6; alimentary oils, repressed, 12, peanut, 14, and olive, 16 to 25; fowls (each), chickens, 80, turkeys, $3 to $4, geese, $3 to $4; ducks, $1.40 to $1.60; eggs, 18 to 40; wines, common red and white, per quart, 4 to 8.

In household necessaries kerosene, common, costs 6 and better quality 8 cents per quart; soap, common laundry, 7 cents, and candles, 9 to 10 cents per pound. Coal costs $10 to $12 per ton; wood, $7.50 to $9 per cord.

On most articles of food the municipality collects a tax upon their entering the city limits. Consequently people living in the smaller outlying towns are enabled to purchase some of the articles for food at a little lower price than the market price in the city. However, the mass of the laboring people live within the city limits, and consequently are not affected by this difference. These taxes, which are paid in all the larger French cities, help to defray the expenses of the municipality, and may be considered a direct tax upon all consumers of these products.

Inquiring carefully into the average price paid for rent of rooms and houses by working people here, it is learned that the average price paid per room in apartments or lodgings occupied by the laboring class is from $18 to $20 per year. Thus, a laboring family occupying a three-room apartment, composed of a general living room, a bedroom, and a kitchen, pays from $50 to $60 per year. These rooms do not contain the usual conveniences found in American houses.

WATER AN EXTRA CHARGE—COST OF CLOTHING.

Running water is not always found in the houses, and when found must be paid for by each tenant. Where the houses are of more modern construction, and are healthful and well ventilated, the cost of rooms is greater. In late years there have been some improvements in the construction of houses for laboring people, and more modern small cottages have been constructed in the outskirts, which rent at from $100 to $160 per year. However, the average working family here can not afford to pay so much for their house rent, and must consequently live in the larger houses in the older quarters, where rents are cheaper, but where they are generally far from healthy, are ill lighted, and poorly ventilated.

The average cost of clothing in general here is not far, if any, below the cost of clothing in the United States. The cost of all articles of cotton is more expensive here than in the United States, while articles of linen are generally cheaper. Clothing made of woolen goods may be considered somewhat cheaper here, particularly considering the lower price of the finer grades of wool goods. However, a workingman can purchase a better ready-made suit of clothes in the United States for from $10 to $15 than he can purchase for the same amount in this country. An ordinary business suit of tweed costs, when made by a local tailor, from $20 to $25, and I am quite sure that an article of clothing as good and as well fitting can be obtained from an American tailor at about the same price.

CONDITIONS OF LABOR.

Taking all these facts into consideration, concerning the condition of labor here as compared with labor in the United States, one may say that labor here has not reached the degree of prosperity that labor has reached in the United States, nor in any way approaching thereto. A great deal has been done and is being done in the way of organizing labor, and this will undoubtedly result in much good for the laboring classes here. Their condition is much better than it was a few years ago, and it is tending to constant amelioration as regards wages, but this condition can not be compared with that of the laborer in the United States, and when the cost of living for laborers in Europe is compared with the cost of living in the United States the fact should be taken into consideration that the laborer of Europe does not live as well as the laborer in the United States, nor are his requirements as many.

Many things are considered necessities to the laborer in the United States which would be luxuries to the laborer of Europe. In Europe the laborer expends much less than in America and in spite of this lives comparatively happy, because he does not know or feel the needs of all that enters into the daily life of the American laborer. The wages here do not permit of extravagance, and comparison of the condition of the laborer here and in the United States can not be made

without coming to the conclusion that the laborer in the United States lives much better than here. Everything in the line of necessities for living comes high in Europe; the only commodity that is really cheap here is the price of labor.

GERMANY.

FACTORS BEARING ON QUESTION—AMERICAN TRADE.

Consul G. A. Bucklin, jr., of Glauchau, reports that another effort is now being made in that district of Germany to raise wages and shorten hours of work, concerning which he writes:

The workers in the knitting-machine needle factories have been having frequent meetings and have resolved to present to their employers, through a committee therefor, a demand for a 9-hour day, a 20 per cent wage increase, and a 25 per cent additional hourly wage for overtime work. The comparatively small number of workers originally affected has been increased by a considerable number of bed and table cover workers joining the movement.

This is significant as carrying out among the smaller bands of wage-workers the general movement for higher wages which has been going on in this region for several years. Increasing prosperity has made the movement generally successful, while increased cost of living has made it necessary. Strikes are now seldom resorted to, contracts between laborers and employers in many cases specifically providing that disputes shall be left to arrangement by conference or arbitration.

Some exporters claim that the increased wages are making it more difficult for them to send their goods to America. Those goods which at the former cost of production left a meager profit when sold in the American market can not now be disposed of there, but new markets must be found where lower tariff rates or higher prices will enable them to realize more from the goods.

The sending of more and more textile machinery to the United States for operation there has been another result of interest. Almost all of the machinery exported from this district to the United States is for weaving or knitting, and though not large in amount has nevertheless a significant bearing, considering its rapid increase. In 1904 it amounted to $2,094; in 1905, $2,612; and in 1906, $8,542. The exporting from here of at least a part of this machinery may be accounted for from the fact that men who have gone from here to the United States to secure better business conditions prefer the machinery to which they have been accustomed.

MANY LINES OF MANUFACTURES ARE AFFECTED.

Consul-General Richard Guenther, of Frankfort, reports on the advanced prices of a number of manufactured articles in Germany. He says:

At the conventions recently held by the manufacturers of silk goods for neckwear and of the German manufacturers of neckties, resolutions were adopted to advance the prices of their products. The manufacturers of laundry goods (shirts, blouses, underwear, etc.) in the Bielefeld district have notified their customers that from January 1, 1907, an advance from 5 to 10 per cent would take place on their products. Manufacturers in some lines of cotton textiles, white goods and ruches, knit wear, carpets, etc., have raised their prices.

The association of cutlery and steel wares of the Solingen district has decided on a general advance of 10 to 12½ per cent on pocket-knives and all other articles in the cutlery and steel ware lines.

Manufacturers of table glassware in Saxony have formed a syndicate for the purpose of advancing prices for their products on account of the increased cost of production.

Austrian-Hungarian copper rolling mills have advanced the prices of their plates and other products. A group of leading manufacturers in Trieste are negotiating for a loan in order to erect copper works at Trieste, which are to use copper ores from transoceanic (United States, Chile, etc.) mines.

These are but a few items from the long line of price advances. Higher cost of raw materials and of labor are the principal reasons assigned for the advance. Quite a number of German manufacturers have opened branch works in Austria in consequence of the unfavorable action of the new commercial treaties, which will not allow them to export their products at a profit.

BELGIUM.

MINIMUM SCALE ESTABLISHED BY MUNICIPAL GOVERNMENTS.

Consul-General H. W. Diederich, of Antwerp, reports on the rate of wages in Belgium. He says in part:

The cheapness of labor in Belgium is the most important factor in making the industries of the country so successful in competition with the world. This is the one thing above all others that the American manufacturer must take into consideration before attempting to introduce his products into the Belgian market. It will be found, generally speaking, that only where American labor-saving machinery has replaced hand-labor has competition in this market from America been possible.

As an attempt to protect the laborer and establish something approaching a reasonable rate of wages, the town councils of Antwerp, Ghent, and Liege have authorized a minimum rate per hour to be paid to persons engaged by these municipalities in the various trades, of which 14 are shown in the annexed table:

Trade.	Antwerp.	Ghent.	Liege.	Trade.	Antwerp.	Ghent.	Liege.
	Cents.	*Cents.*	*Cents.*		*Cents.*	*Cents.*	*Cents.*
Blacksmiths	11	8	.....	Locksmiths	8	.....	9
Boilermakers	.....	7	9	Masons	9	8	8
Carpenters	9	8	8	Painters	9	7	7
Cement workers	.....	.....	.....	Plumbers	9	8	8
Electricians	.....	8	10	Printers	9	7	.....
Glassworkers	.....	.....	8	Roofers	9	7	8
Glaziers	9	7	0	Stonecutters	8½	.....	8

ITALY.

EXPENSES COMPARED WITH THOSE IN AMERICA.

Consul J. E. Dunning reports that living in Milan costs on an average as much as living of the same kind would cost in the United States. He makes the following comparisons:

A family living in Milan, about as a family of similar size and position would live in Boston, must pay more for its subsistence and com-

forts than the American family pays. If an average American family of two adults and two children, with a total income of $2,500 annually, were to be transplanted to Milan and should try to live here as it lives in the United States, it would have to pay $400 for the rent of 9 rooms; $420 for servants; $50 for fuel (gas); $40 for lights (electric); $15 for servant tax; $40 for telephone; $600 for food; and $35 for personal taxes; or a total of $1,600.

Additional miscellaneous expenses, such as for clothing, traveling expenses, entertainments, medical attendance, and reading matter are not less than they are in the United States, when taken as a whole, and some of them are much more. Against two servants in America, in Milan there must be a cook, a housemaid, a laundress, a man to clean floors and beat rugs, and a porter, each of whom receives twice a year $3 to $5 each extra, besides liberal tips. Hundreds of others call for tips of 2 to 5 cents. Clothes for women and children can be made very cheaply in Milan, and their cheapness is immediately apparent to the most inexperienced observer. On the other hand, good clothing of this class, as indeed every article excepting men's outer garments, costs at least 25 per cent more here than it does in the United States. Men's outer clothing costs slightly more than in England, but the quality and cut are inferior, except among the fashionable tailors, whose prices are high.

FOOD ITEMS—ENTERTAINMENT—REGULATIONS FOR LABOR.

If the estimate for table expenses seems high, one must bear in mind that in Milan sugar costs 16 cents per pound, butter 28 to 30 cents, eggs 16 to 25 cents per dozen all the time, beefsteak 26 to 30 cents, milk 7 to 8 cents per quart, while coffee, tea, beans, chocolate, cheese, bread, cost as much or more than they do in the States. The servants drink at least $2 worth of wine per month. Rice and red wine are cheap, plentiful, and good. Coal and wood are triple the prices in America.

The population of the district has little knowledge of or capacity for the pleasure seeking that has become so marked a feature of every great American city. They are slow-going, sober, and intensely industrious. They are inclined to plod rather than to run. Milan has no sort of "popular" resorts, except the race courses and the theaters, to which the people can go at the end of a day's work or on a Sunday. As enterprising speculators in public diversions encourage them to indulge in these things there will come a demand for shorter hours. The hours of labor for women and children are already the subject of wise legislation, and further improvements in this direction are now under discussion. Day-and-night-work is being discouraged. There is a strong new sentiment against going outside of Italy for anything which can be produced here.

In view of the increased cost of living, the Milan city government is pushing its plan for the establishment of groups of workingmen's houses. Several groups of these are now in use in the city proper, and plans are developing for the most extensive experiment of the kind yet attempted. An entire suburban village has been condemned, and is to be rebuilt as a model village, with both cottages and apartments for workingmen and their families. This village will be built around a "civic center," in which will be placed the hospital, public markets, entertainment buildings, washhouses, and baths.

AUSTRIA.

HIGHER PRICES IN BOHEMIA.

Consul U. J. Ledoux, of Prague, reports that tnere was a general advance in the prices of merchandise in Bohemia during 1906.

The raw materials, half products, and finished goods have, almost without exception, experienced substantial advances. The new tariff, with its higher duties, and the raise in the wages helped to increase prices in many lines. There are so far no symptoms of reaction and, as the rise has been very gradual, it appears very probable that the higher level of prices will be maintained during 1907, excepting for articles where the advance has been due to a temporary scarcity or an exceptionally brisk demand. Among the list of articles advanced were iron and steel manufactures, tin plate, metals, such as manufactures of brass, lead and copper, coal, textiles, leather, electrical apparatus and supplies, paper, rubber goods, soap and candles, etc.

STRIKES IN EUROPE.

LABOR TROUBLES GREATLY DIMINISH IN NUMBER.

Consul Thomas H. Norton, of Chemnitz, reports as follows on the labor disputes of Europe during the closing month of last year and their outcome:

The statistics for European labor movements show that during the month of December, 1906, in the three chief manufacturing countries of Europe—France, Germany and the United Kingdom—80 strikes began. This condition of affairs shows a distinct improvement on the number of strikes begun in the preceding month of November, viz, 104, and those of December, 1905, viz, 87. The number of participants in strikes amounted in December, 1906, in France and the United Kingdom to 8,516, compared with 24,578 in November, 1906, and with 15,062 in December, 1905. In France the diminution of strikes was more marked than elsewhere. In December, 1905, the number of strikers was 11,871; in December, 1906, almost exactly a third of that figure. Most of these were in textile branches. British miners and textile operatives formed the bulk of the strikers.

The nature of the strikers' demands is an eloquent testimony to the generally prosperous condition of manufacture. Not a single strike was organized in protest against a reduction in wages, while 25 strikes were based on a demand for increased pay. The outcome of the strikes was less satisfactory than usual to the workers. In 9 cases they were fully successful; in 12 cases work was resumed without alteration in existing conditions. Compromises on both sides brought about settlement in 24 instances.

MISCELLANEOUS.

EDUCATION.

ITALY.

COMMERCIAL SCHOOL GIVES THOROUGH BUSINESS TRAINING

Upon request of the Department of Commerce and Labor, Consul Paul Nash has furnished an interesting report on the course of study and methods of preparing students for commercial pursuits by the Royal Commercial School, of Venice. The graduates of this and similar schools established in the principal commercial countries of Europe, supported in part by the respective Governments, constitute the class from which European manufacturers select agents to represent them in promoting trade in foreign markets. Consul Nash's report follows:

The founding of the Regia Scuola Superiore di Commercio, of Venice, may be said to date from the signing of the royal decree of approval on August 6, 1868, and was the direct result of the commercial awakening which marked the incorporation of the Venetian provinces into the Kingdom of Italy. Modeled after a school already existing in Antwerp, it was organized with a governing board composed of delegates from the Provincial Council, the Communal Council, and the Chamber of Commerce, three elective bodies which, with the Italian Government, had combined to establish it. This board was later increased by two delegates from the Italian Government

FINANCIAL SUPPORT.

The school is supported by subsidies from the Province of Venice, $8,000; from the Italian Government, $5,000; the city of Venice, $2,000, and from the Chamber of Commerce, $1,000; plus the tuition fees, etc., about $5,000, giving a total of some $21,000. This modest sum, while sufficient for the running expenses of the school, does not permit of that enlargement and improvement which is desired, and I am informed that the subsidy of the Government will be increased. The number of students in the school is only 186, and this small attendance probably depends, first, upon the lack of scholarships, and, second, upon the fact that the average young man able to pay for his education and desiring to prepare himself for the public service or for commercial life prefers the freedom of the universities, where registration is all that is required to enable a man to present himself for examination, and where attendance at lectures, etc., is not compulsory, as in the Scuola di Commercio. In justice to the Italian universities

it must be noted that the laxity above referred to is only allowed in the course resulting in the "laurea i giurisprudenza," a degree which corresponds somewhat vaguely to our LL. D.

COURSE OF STUDY.

The courses of study which are offered here are three in number—the commercial, of three years, the normal, of four and five years, and the consular, of five years. In the first year the subjects studied by the commercial and consular classes are identical and consist in Italian literature and language, French, German, and English, economic geography, accounting, algebra, introduction to the science of trade, commercial institutions, civil-law institutions, and caligraphy, while the normal class has an exhaustive training in the Italian language and literature, and foreign languages. In the second year the commercial class continues the subjects of the first year, less the study of commercial institutions, but adding mercantile calculation, commercial and maritime law, and the practice of commerce. The consular class has the same subjects of study as the commercial, minus accounting, the practice of commerce, and caligraphy, and plus civil law. The normal class in this year is divided into four sections, depending upon the branches its members are preparing themselves to teach, viz: Legal, economic, and statistical subjects, commercial science, accounting, and foreign languages, with an extraordinarily thorough curriculum for each.

In the third year the commercial class graduates, after continuing the studies of the preceding year, less the course in commercial institutions and with the addition of commercial law, the history of commerce, and political economy. The consular class adds the same subjects to the curriculum of the second year, while the normal classes continue in their respective branches. The fourth year shows a programme for the consular class of the three foreign languages, political history and the history of diplomacy, international, civil, and constitutional law, criminal law and procedure, political economy, finance, and theoretical statistics. The first division of the normal class has all these subjects, less the foreign languages and plus the study of administrative law, the second and the third division graduate after courses in pedagogics, the fourth division, that of foreign languages, continuing with foreign commercial correspondence, practice in the correction of the exercises of the inferior classes, etc. The consular class in the fifth year adds a course in civil procedure to those of the fourth year, and of the two remaining divisions of the normal class the first adds rural legislation and pedagogics and the second pedagogics alone.

SUCCESS OF GRADUATES.

After such a tremendous course of study as is required by this school it is not surprising that its graduates have little difficulty in finding employment or in securing positions in the Government service, which, from the schoolmastership to the diplomatic amd consular services, are only to be obtained after the most stringent competitive examinations. Indeed, in the last competition for five vacancies in the consular service, two men from this school were successful against 42 competitors, and this result surprises no one. It is said, and is

undoubtedly true, that graduates in the commercial class are eminently fitted for the work before them and by promoting trade and industry become a positive asset to the community and to the nation, while teachers who have succeeded in passing the final examinations here are wonderfully equipped. In fact, the work accomplished here and in the similar, though smaller, schools of Bari and Genoa has led to the project being formed of establishing two more on the same lines, one in Turin and the other in Rome. These, being in larger places, will be numerically and financially more prosperous, but as to standard it will be most difficult to improve on that of the school in Venice.

GERMANY.

RESTRICTION OF FOREIGN STUDENTS IN UNIVERSITIES.

Consul Thomas H. Norton, of Chemnitz, reiterates the statements of other consuls that for some time past the feeling has been growing in Germany that the traditional hospitality of her universities and other educational institutions, open freely to the students of every land, should henceforth be kept within certain limits. Mr. Norton goes on to say:

That the practice causes the expenditure of a considerable amount of foreign money in university cities and throughout the land, and, what is far more important, that it enhances the intellectual prestige of the Empire are uncontested facts. On the other side of the ledger are two equally plain facts. German institutions have been and are training up a large number of foreigners who are duplicating in other lands not only the educational plants of the Empire but also its technical methods, and, above all, its spirit of investigation and research.

FOREIGNERS EDUCATED INTO RIVALS.

In Japan and in the United States these results are already strikingly evident. Until within a recent period no young American, ambitious to distinguish himself in such a science as chemistry, felt that he was equipped for a successful career without a degree from a German university. Now he secures in the universities of the home land an equally thorough training, and finds himself in an equally inspiring atmosphere. The same may be said of the experimental and testing laboratories of most great American manufacturing industries involving the application of modern science. Analogous results are recorded in Japan. These conditions, due originally in large measure to the liberality of the higher institutions of learning in this Empire, and threatening its industrial supremacy in many directions, are becoming more and more patent to observant Germans.

A second purely physical fact is the increasing inadequacy of existing buildings and equipment to meet the needs of the growing number of students. Both of these circumstances, as well as occasional complaints that favoritism is often shown foreigners in connection with examinations, the assignment of seats in lecture rooms, etc., lead to frequent demands that students from abroad should not receive an equally generous treatment with those of German origin.

NUMBER OF FOREIGNERS IN ATTENDANCE.

The statistics of attendance this winter at the higher educational institutions of Saxony show to what extent this reasoning has a basis. At the University of Leipzig the number of matriculated students is 4,466. Of these, 323 study theology, 1,113 law, 574 medicine, and 2,456 letters and science. In addition 884 persons, including 104 women, not regularly matriculated are admitted to hear lectures. Of the matriculated students 2,278 are Saxons, and 2,188 are from outside the Kingdom. Of these latter 1,526 are from other parts of Germany and 662 are foreigners. Over half of these foreigners, or 340, are Russians. Exactly one-eighth of the student body is from outside the Empire. Few of these foreigners study theology. They are especially numerous in the agricultural institute, forming exactly half of the total attendance.

In the recently established Commercial University at Leipzig there are now 586 students enrolled, and of these 322 are foreigners. Russians also predominate here. In the Royal Conservatory of Music at Leipzig there are usually about 300 foreigners in a total attendance ranging from 800 to 900. Of the 1,063 students at the Dresden Polytechnic 507 are from Saxony, 209 from other parts of Germany, and 347 are from abroad. Of the latter 202 are Russians. At the Dresden Veterinary College there are 60 foreigners in a total of 137 students.

At both the Freiberg School of Mines and at the Forestry Academy of Tharandt foreign students are in the majority.

HIGHER TUITION FOR FOREIGNERS.

Critics of these certainly abnormal conditions claim that the public funds, granted each year for the above-mentioned instititutions, can not equitably be employed, at least on so extended a scale, for the education of non-Germans. The demand is made that foreigners should be required to pay higher tuitions than native students, and that thus the injustice may be, to some extent, rectified.

In the finely equipped Technical Academy of Chemnitz this practice was introduced two years ago. Saxon students pay tuition at the rate of $40 annually, students from other parts of Germany pay $75, and foreign students pay $125.

It is too soon yet to note a distinct influence on the attendance from abroad as the result of this regulation.

RUSSIA.

PUBLIC SCHOOLS IN ODESSA AND ST. PETERSBURG.

Consul Thomas E. Heenan furnishes a comparison of the public school systems of Odessa and St. Petersburg, being the translated summary of an article in a Russian newspaper:

From the beginning of the academic year 1905–6 there were established in Odessa 26 new classes (15 normal and 11 irregular classes), which increased the number of schools to 89 with 301 classes. The scholars numbered 5,852 boys and 6,634 girls. There graduated in

1905–6 534 boys and 673 girls. There were also 13 Sunday and evening schools with 1,847 scholars.

The following are the figures given for the same period of time in St. Petersburg: At the beginning of 1906 there were established 37 new classes in 339 schools. There were 15,694 boy and 15,288 girl pupils. The number of graduates was 3,230 girls and 3,197 boys. Of Sunday schools there were 27 with 1,483 scholars, while in Odessa with only half the number of Sunday schools there were 500 more scholars attending.

The number of inhabitants in St. Petersburg is almost three times as large as in Odessa, yet the former had but 631 classes against Odessa's 301. Popular education in Odessa is not very far from perfect, and if the efforts to improve continue, the chances are that it may become perfect in the not distant future.

MADAGASCAR.

TEACHERS MUST BE PROFICIENT IN FRENCH.

Consul Wm. H. Hunt transmits from Tamatave a copy of a decree of the governor-general of Madagascar regulating the administration of schools on the island. Directors of schools for European children must be French. Other foreigners can hold positions as submasters or assistants if they furnish certificates of proficiency in the French language. Regulations as to schools for natives, etc., are contained in the decree, which is on file for reference at the Bureau of Manufactures.

DRUG TRADE.

AMERICAN GOODS IN AUSTRALIA.

IMPORTANCE OF RESIDENT AGENTS—AMERICAN PRODUCTS POPULAR.

Special Agent Harry R. Burrill finds that the importation of American drugs into Australia each year shows a substantial increase. He writes from Melbourne:

Through judicious advertising the consuming public has been informed of the merits of American drugs, and when they were given a trial, it was found that no misrepresentations had been made. It can be readily understood that a firm acting as agents for a variety of commodities can not devote exclusive attention to any one particular article, and therein lies the advantage of a resident agent over a commission house. Not only in drugs but in all other manufactures, when the foreign market is of sufficient size to justify it, the home manufacturer is far more satisfactorily represented by his own resident agent. This is true in all foreign markets, so far as they have come under my observation, and it will be an important factor in the successful development of the export trade of the United States.

DRUGS AND CHEMICALS IMPORTED.

The extent of the Australian drug market is shown by the following table taken from the trade and customs returns of the Commonwealth for 1905. These are the latest official figures obtainable, and while

given in round numbers and the countries exporting under $500 are not mentioned, they are sufficiently accurate to serve the purposes required.

Articles.	Country of origin.	Value.
Bisulphites and sulphites of potassium, sodium, calcium and magnesium, and foaming powders and liquids.	United Kingdom	$26,000
	France	1,500
	Germany	3,000
	United States	11,000
Potassium, cyanide of	United Kingdom	900,000
	Germany	130,000
	United States	4,000
Bacteriological products and serum	United Kingdom	5,000
	Canada	1,000
	France	3,000
	United States	750
Cream of tartar	Belgium	2,000
	France	575,000
	Germany	3,000
Food preservatives	United Kingdom	9,000

Under the free-of-duty heading may be found a lengthy list, which it is unnecessary to enumerate. The share of the various countries was:

United States	$42,000	Belgium	$2,000
United Kingdom	620,000	China	7,500
Canada	2,500	France	18,000
Germany	175,000	Japan	3,500
Austria	12,000		

Fluid extracts from the United States have a wide sale in Australia, and the demand is steadily increasing. The American pepsins practically control the market, while American patent medicines are firmly established.

In all British colonies and dependencies the English pharmacopœia is in use, and this, to some extent, retarded the introduction of American drugs. Physicians here made out their prescriptions according to the pharmacopœia recognized by the profession, but this difficulty was met by the American manufacturers placing on the bottle a label which showed the variation of strength between the American formula and the English formula.

SURGICAL GOODS—BRITISH PREFERENTIAL UNLIKELY.

Surgical appliances exported from the United States have attained a widespread popularity, and this is attributed to their excellent quality and satisfactory price. Exporters, however, should exercise more care in the packing, for complaints are not infrequent that the goods have arrived in a damaged condition because the outside cases were not strong enough to withstand the rough usage to which cargo is subjected in the long voyage between the United States and Australian ports.

The British preferential trade proposition before the last Parliament contained no allusion to drugs or druggists' supplies, and there is apparently no disposition on the part of the Commonwealth government to discriminate in this line in favor of the mother country. Drugs from all producing countries are therefore entering Australia under the same tariff conditions, and under these circumstances the American combination of merit and reasonable cost should hold its own on this market.

THE OPIUM CURE.

INVESTIGATION OF THE NEW PLANT SAID TO CURE THE DRUG HABIT.

The recent publication in Consular and Trade Reports of an account from the China Telegraph of the discovery of an indigenous plant in the Malay Peninsula, which had successfully cured many Chinese of the opium habit, caused numerous American inquiries for further information about this plant. The following article in the London Times from Edward Morell Holmes, curator of the Pharmaceutical Society of Great Britain, will therefore be of interest:

Hitherto the name of the plant used as a cure for the opium habit in the Straits Settlements does not appear to have been made known. Specimens of the plant in flower and fruit have been presented to the museum of this society by L. Wray, curator of the Taiping Museum, Perak. This gentleman, who is a careful botanist, has identified the plant as Combretum sundaicum, Miquel. It accords well with Miquel's description, and there can be no doubt that it belongs to that species. It is a woody climber, with opposite leaves, in size and shape somewhat resembling that of the pear tree, and bears globular clusters of small white flowers arranged in panicles, the flower being followed by a red fruit about an inch long, furnished with four longitudinal wings.

The plant is abundant on the plains around Kuala Lumpur, in Salangore, Malay Peninsula. The properties of the Combretaceæ, the natural order to which it belongs, are very little known; some are used in malarial fevers, two are known to possess vermifuge properties, and one is used for poisoning bats. As soon as a larger quantity of the plant arrives the leaves will be subjected to chemical analysis and physiological investigation, and its actual value or otherwise determined. Meanwhile a few preliminary tests applied in the research laboratory of the Pharmaceutical Society to the small quantity of the leaves available indicate only the presence of an astringent principle, and a coloring matter which do not afford a definite proof of the presence of any alkaloid or glucoside, although the leaves appear to contain some substance as yet unknown to chemists.

INDIA'S EXPORTS AND CHINESE STOCKS.

Consul-General William H. Michael writes from Calcutta that, notwithstanding the export duty of $166 per chest on opium, the quantity shipped out of India is on the increase. The number of chests exported in 1905–6 was 62,938, valued at $31,572,555. Over two-thirds of the exports go to China through Hongkong and other treaty ports. Considering this large revenue the edict prohibiting imports of opium into China is not popular with opium dealers in India, who are seeking through their government to have the Chinese Government defer putting the edict into operation until January 1, 1908, which would give them time to work off stock on hand.

A Reuter telegram from Shanghai says that thirteen firms, representing the whole of the British community interested in the opium traffic, have addressed a letter to the British consul-general, stating that their present holdings of opium at Hongkong and Shanghai are approximately valued at 10,000,000 taels ($8,000,000), and claiming a hearing in regard to the manner of the intended extinction of the

trade, which they urge ought to be gradual. The signatories conclude by asking the views of the British Government on the subject.

GINSENG IN CHINA.

DEMAND LARGE AND CONSTANT—PRICES HIGH.

Vice Consul Rea Hanna, of Amoy, furnishes the following facts about the market for ginseng in China:

American ginseng in China is handled entirely by Chinese firms, hence it is rather difficult for the producer to establish direct connections. All business is conducted through a middleman, who appropriates a large share of the profits. Another difficulty is the Chinese method of grading the roots. Ginseng that is shipped from America as first quality, on arrival may vary through several grades, according to the standard set by the middleman, who sorts, ties, and prepares it for the market. Large roots running 10 pieces to the caddy (1⅓ pounds) and of firm consistency are considered the best and bring $40 to $45 Mexican ($20 to $22.50 gold) per caddy. Other qualities running more pieces to the caddy bring varying prices down to $25 Mexican ($12.50 gold) per caddy.

Many persons ask why cultivated ginseng is considered of poorer quality than the wild. The Chinese make no distinction as regards this point; but, in the grading, the cultivated product seems to fall lower in the scale on account of it being less firm in consistency than the wild. A spongy root is practically worthless. If the ginseng is not well packed and absorbs moisture in transit it also lowers the grade materially. On account of these difficulties to be overcome, it would seem advisable to sell through brokers in New York or San Francisco. There is always, however, a good local market for American ginseng in China. [Names of Amoy ginseng dealers are on file in the Bureau of Manufactures.]

IODINE IN CHILE.

PRODUCTION IN THE NITRATE FIELDS.

Consul A. A. Winslow, of Valparaiso, reports that the iodine combination in the nitrate fields of Chile is having some difficulty in controlling the output.

On October 31 last the combine had on hand 25,951 Spanish quintals, while the deliveries for the current year to the same date were 7,078 quintals, showing a gain of 3,155 quintals over last year.[a] The price so far this year has been held at 12 cents per ounce. It may be interesting to know that the great tidal wave that destroyed Iquique, in the northern part of Chile, on August 13, 1868, destroyed the first iodine successfully extracted on a commercial basis from the water used in boiling nitrate earth. The honor of the discovery belongs to an Englishman. The industry has become a profitable feature of the nitrate fields the past few years.

[a] A metric quintal is 220.46 pounds. Although the metric weights are used officially in Spain, the Castile quintal of 101.41 pounds is employed in commerce in the peninsula and colonies, and in Chile and Peru; except that in the Spanish province of Catalonia a quintal of 91.71 pounds is used.

TIMEPIECE TRADE.

WATCHES, CLOCKS, AND PLATED WARE.

AUSTRALIAN MARKETS AND AMERICAN TRADING OPPORTUNITIES.

Special Agent Harry R. Burrill, in a report from Melbourne, shows that the Australian trade in timepieces is a growing one in which American firms are strongly participating, and that the sales of American silver-plated ware might be extended by copying British designs. Mr. Burrill writes:

American watches and clocks have attained a widespread popularity on the Australian market, and deservedly so, because the manufacturers have consistently maintained the standard of their goods and have made their trade-mark a guaranty of the quality of their output. Business methods of this kind insure success in foreign markets, and the trade in this Commonwealth, although somewhat limited because of the slow increase in population, serves to demonstrate what can be accomplished through the cordial cooperation of importer and manufacturer. American watches exported to Australia are of good quality and medium price. No attempt of any importance has been made to compete with the cheap Swiss watches. Notwithstanding the large sale of the latter the watches imported from the United States constitute approximately 25 per cent of the total importation into the Commonwealth. The high-grade English watches also command a ready sale, but the American movements with either gold or gold-filled cases stand in a class of their own and give uniform satisfaction.

The Australian imports of watches for 1905 are officially stated as follows: United States, $83,000; United Kingdom, $250,000; France, $10,000; Germany, $25,000, and Switzerland, $93,000. While these figures may not indicate an extensive market in comparison with the trade of some countries, they are sufficiently large to attract manufacturers and induce them to continue their efforts to maintain and increase their representation on the market. In addition to this there has been a steady growth in the trade and according to the importers and dealers in the Eastern States of the Commonwealth, the distributing centers for practically all the imported commodities, the outlook for a still greater expansion is most encouraging.

AMERICAN MOVEMENTS, ADVERTISING AND PACKING.

Gold-filled cases, with standard American movements, have struck the popular fancy here and the demand is steadily increasing. The guaranty accompanying these filled cases is an important factor in the ready sale they command, but no less important is the reliability of the movement, which, though comparatively inexpensive, has given universal satisfaction so far as is known.

Judicious advertising has helped materially in pushing the sale of American watches and it is the general belief that a more liberal expenditure of money through the best advertising mediums would further increase the demand. This, however, is a matter that would have to be arranged between the manufacturers at home and their representatives here.

Packing of the watches exported from the United States is regarded as satisfactory, although it is suggested that the shipping cases should

be strengthened with iron hoops or wire roping. The reason for this suggestion is found in the occasional arrival of a case from which one or more watches have been abstracted. It has been impossible for the importers to ascertain whether the goods were pilfered before or after they left New York, but secure packing they regard as an almost certain preventive against pilfering on the railroad, the docks, or the steamship.

It is further suggested as an additional precaution that there should be no mark on the cases which would indicate the character or value of the contents. For instance, the label "two dozen gold watches" might provoke a dishonest person to make an investigation if he were in need of a timepiece and could obtain it without danger of interruption. The papers show the contents, and that is sufficient for the conduct of the business and the information of all parties concerned.

AMERICA'S LEAD IN CLOCKS—TARIFF RATES.

The United States leads in the exportation of clocks to Australia. In 1905, according to the latest accurate figures obtainable, the value of clocks imported from the United States was $140,000, from the United Kingdom $43,000, and from Germany $33,000. This trade has shown a steady growth and according to importers and dealers here the outlook for the coming year is very encouraging. The imitation marble clocks made in the United States are probably the most popular of the American clocks exported to this market, although other frames have their established places in the retail trade.

The present duty on watches and clocks is 20 per cent ad valorem, but these articles were included in the preferential trade legislation of the last Parliament, and in these schedules the duty was increased to 30 per cent ad valorem on goods from countries other than the United Kingdom.[a] With preferential trade with Great Britain an accomplished fact, American manufacturers of various commodities may look for a discrimination of 10 per cent against their goods, and this is a question that will unquestionably have to be met within a comparatively short time.

SILVER-PLATED WARE.

American plated novelties command a ready sale all over the Commonwealth, but the market is not a particularly attractive one because of its limitations. Plated table ware is imported very largely from England and this condition will doubtless continue until the manufacturers of the United States decide to imitate English designs. Importers and merchants here suggest that American manufacturers who desire to extend their trade in this ware send out a competent man to study the requirements of the trade. He should examine closely the English patterns and designs, which now control the market to the practical exclusion of all others, with a view to reproducing them in goods of American make. According to those who are thoroughly in touch with the situation the plated ware of the United States will be unable successfully to compete with the English goods until the suggested changes in designs are made.

The demand for this class of goods is evidently of sufficient size to

[a] The new tariff, however, is held in abeyance until it receives the sanction of the British Government; and the whole topic will be reviewed at the meeting of colonial premiers which is expected to meet shortly in London.

justify a careful investigation by an expert, and it is fair to assume that such an investigation, resulting in the adoption of popular and saleable designs, would at once largely increase the importation of American plated ware and eventually develop an attractive market.

MARKING WATCH CASES.

PENDING CHANGE IN BRITISH OFFICIAL REGULATIONS.

Consul Albert Halstead reports further from Birmingham in reference to his report published in Consular and Trade Reports, showing that a decision of the court of appeal of the British supreme court of judicature construing the merchandise marks act of 1887, makes it necessary that "hereafter watches of foreign manufacture whose cases are gold or silver must be assayed, stamped, and marked before being offered for sale in the United Kingdom." The consul now adds:

The attention of the British Board of Trade has been called "to the difficulty of placing on watch cases of small size the marks prescribed by order in council under the merchandise marks act of 1887, without injury to the watch case, and it is suggested that a new order should be made prescribing the more simple marks placed on foreign plate which could be used without much difficulty."

It is further stated that the Board of Trade before making a decision on this point is ascertaining the opinion of the British trade and that "so far as can be gathered there is little objection to the proposed change, if care is taken that the foreign mark is not of less size than that placed on home-made articles."

CANADIAN STAMPING LAW.

REGULATIONS FOR JEWELRY AND SILVERWARE.

There seems to be considerable misunderstanding, particularly among some manufactures, in regard to the stamping law passed last year by the Canadian Parliament. The Jewelers' Circular, therefore, makes the following explanation:

The law in no way discriminates against the United States or other foreign manufactures, or in favor of local manufacturers; all the provisions, such as the registering of trade-marks, applying with equal force to Canadian manufacturers and their competitors in the United States and other countries. The New England manufacturer who does a large business with Canada will find no difficulty in complying with the provisions of the law, provided he will stamp his product accurately and honestly. He will simply have to register his trade-mark and stamp this, as well as the quantity, upon those articles of plated ware on which he wishes to put a quality stamp. If he desires to send his products to Canada without stamping or marking them in any way the law will not interfere with him, but if he does desire to mark his goods these marks must be accurate.

The imports of clocks, watches, jewelry, and gems into Canada for the six months ended September 30, 1906, amounted to $2,346,490, of which the United States furnished $1,025,168 worth; Great Britain, $710,371; Germany, $84,426, and other countries, $526,525. The imports from the United States were: Clocks, worth $135,499; watches,

$337,544; manufactures of gold and silver, $123,633; jewelry, $332,313, and precious stones of all kinds and imitations of, $96,179. Great Britain's largest item was precious stones and imitations of, valued at $481,001.

LUMBER.

AUSTRALIAN DEMAND.

MARKET WOULD TAKE INCREASED QUANTITIES FROM AMERICA.

The demand for American lumber in Australia is reported by Specia Agent Harry R. Burrill to be greater than the supply, notwithstanding the exceedingly satisfactory prices commanded in the commonwealth, concerning which he writes:

The only reason for the lack of greater progress in this line of American trade advanced by those whose business connections enable them to speak with authority is the activity of the home market, coupled with the apparent indifference of the American exporters to the advantages of the foreign trade. The lumber business carried on between the Pacific coast and Australia is evidently in the hands of comparatively few exporters, who, although desirous of maintaining an outlet for their surplus in the southern hemisphere, are not anxious to increase their shipments at the time of a strong home demand. Several of the coast exporters have been interested in the Australian trade for years, but according to the importers and dealers here they are merely keeping their fingers on the commercial pulse of the commonwealth and administering their remedies for scarcity of material in homeopathic doses. This is not intended to convey the impression that the annual importation of American lumber into Australia is small or unimportant, for just the reverse is the case. It is only to intimate that the value of these imports could be greatly increased if the difficulty of filling all orders, irrespective of size, could be removed.

The Oregon pine, yellow pine, sugar pine, and redwood from the United States are all popular on this market, and deservedly so, while from Norway are imported large quantities of Baltic pine, which is used for flooring. The Oregon pine is used extensively for building purposes and in the mines of Western Australia, Victoria, and New South Wales. Yellow and sugar pine are used for doors, joinery, etc., while the redwood is made up into house moldings. The following table, compiled from the trade and custom returns for the Commonwealth for 1905 (the latest figures obtainable), shows the country of export, value, and customs duty on timber imported into Australia:

Articles.	Country of origin.	Value.	Duty.
Undressed Oregon, 12 by 6 inches and over	United States	$550,000	12 cents per 100 superficial feet.
	Canada	45,000	
Dressed, n. e. i	United States	115,000	75 cents per 100 superficial feet.
	Norway	1,200,000	
	Sweden	75,000	
Undressed, n. e. i., 12 by 6 inches and over	United States	40,000	25 cents per 100 superficial feet.
	India	50,000	
Undressed, n. e. i., less than 12 by 6 inches	United States	950,000	37 cents per 100 superficial feet.
	Canada	200,000	
	Germany	5,000	
	Norway	60,000	
	Russia	60,000	
	Sweden	110,000	

Articles.	Country of origin.	Value.	Duty.
Laths	United States	$60,000	$1.25 per 1,000.
	Canada	3,500	
Pickets, undressed	United States	20,000	25 cents per 100.
	Canada	500	
Shingles	United States	15,000	75 cents per 1,000.
Staves, undressed, not shaped	United States	50,000	Free.
	Canada	9,000	
	New Zealand	16,000	
Pine, undressed	United States	85,000	Free.
	United Kingdom	6,000	

Under these classifications, which are used by the Australian customs authorities in making up their returns, it will not be difficult for those interested in the lumber trade to observe what proportion of the Australian market is now in the hands of the American exporters. It is, of course, obvious that the lumbermen of the Pacific coast thoroughly understand the conditions of the Australian trade and will govern themselves accordingly. It is also as comforting as it is unusual to find a foreign market where the trade in an American commodity could be increased with so little effort.

CANADA.

TIMBER CUT OF ONTARIO.

Vice-Consul J. N. Fairbairn, of Sault Ste. Marie, quotes the Superintendent of Lands, Forests and Mines of the Province of Ontario, who states that the estimated timber cut (board measure) in Ontario for the present season is as follows:

Pine, 1,000,000,000 feet; hemlock, 70,000,000 feet; spruce, 1,500,000 feet; squared timber, 1,250,000 cubic feet; railway ties, 4,500,000 feet, and pulpwood 100,000 cords. The estimates are all larger than the actual cut of last season, but it is expected that they will be realized in every case owing to the great demand for timber of all kinds. The large estimate for railway ties is fully warranted by the many railway undertakings upon which active work will be commenced or resumed this year.

THE CONSULAR SERVICE.

GREAT BRITAIN.

INFORMATION TO BE WIRED TO THE TRADE.

Speaking at Walsall, on the evening of January 23, Mr. Lloyd-George, president of the Board of Trade in the British cabinet, according to the London Financial Times, said one of the things which he thought the Government could do to improve British commerce was to strengthen the intelligence department of the Board of Trade, and thus discover the reason of the success or failure of other countries. With this object all British consuls sent abroad in the future would first have to pass through the intelligence department. There had also been complaints in the past that the information contained in consular reports was of no use by the time it was published. In the future, information would be promptly wired to chambers of commerce and others interested as soon as it was received.

AUSTRIA-HUNGARY.

THE GOVERNMENT PLANS REFORMS.

Consul-General Richard Guenther, of Frankfort, writes that, according to German-Austrian correspondence, the new Austrian minister of foreign affairs intends to reform the diplomatic and consular service of the Austrian-Hungarian Empire by requiring of the incumbents of these branches a better knowledge of economic matters and of foreign languages. The minister also favors a more prompt publication of consular reports, but considers it expedient to use great caution, so that they will only reach Austrian-Hungarian interested parties and not allow the contents to reach foreign competitors.

UNITED STATES.

COMMUNICATION WITH CONSULS.

The Department of State has issued the following notice which should be kept in mind by business men and others in addressing letters to consular officers:

To insure prompt attention, letters upon consular business should be addressed to the American Consul, at ———, ———.

Such letters are opened and attended to by the person who happens to be in charge of the office. If addressed to the consul by name they are forwarded to him unopened if he should be absent, and a delay thus intervenes; if he should in the meantime have gone out of office they may wholly escape attention.

TRADE-MARKS.

ARGENTINA.

REGISTRY IS NECESSARY TO PROTECT FOREIGN GOODS.

Consul-General Alban G. Snyder, of Buenos Aires, calls American manufacturers' attention to the absolute necessity of registering their trade-marks in Argentina if they wish to enjoy exclusive use of their marks in that country. He writes:

The appropriation of foreign trade-marks has reached a very serious stage in recent years, and if manufacturers do not wish to become the victims of unscrupulous business firms or individuals (provided some of them have not already experienced this sharp practice) they should take warning from the experience of others. Until the Argentine law is changed the registry of trade-marks is the only way to combat this class of men, who make it their object to profit by the brains and business ability of their superiors.

If an Argentine firm usurps the mark of a foreign manufacturer and registers it, then the real owner is helpless, for the new owner can take legal action against the real owner of the mark for imitating or fraudulent use of same. The rightful owner may even have his merchandise excluded from the market simply because it bears his own mark. It has happened that foreign manufacturers have had to leave the market after having spent much time and money in building up

their business, or have had to pay an indemnity to a local firm which has been brazen enough to register a world-known mark.

Not only do local manufacturers appropriate foreign trade-marks, but likewise mark their wares so as to convey the impression that they are of foreign manufacture, thereby increasing the fraudulent practice, and they carry this on by means of protection laws. Until such time as these evils are corrected, American manufacturers should see that their trade-marks are registered, provided the market is worth their time and attention.

CHINA.

DEPOSITING MARKS WITH GOVERNMENT.

Information has been received by the British Board of Trade to the effect that owners of trade-marks can deposit the marks of which they claim to be proprietors in China. No regulations as to registration of marks are as yet in force in China, and the Board of Trade are not aware that the deposit of marks at the present time confers any legal status or right. It can, however, do no harm, and seeing that deposits are being noted by the authorities and can be made without fee, it is for owners of trade-marks to consider whether their interests in China are of sufficient moment to make it worth their while to make such deposits. It is believed that applications for the deposit of marks can be made to the commissioners of customs at Tientsin, Shanghai, and Canton. The board also understand that marks when deposited are being numbered and filed, and that they are open to inspection.

IRELAND.

GAELIC DESIGN.

Consul A. K. Moe, of Dublin, forwards an article he has prepared on the new trade-mark of the Irish Industrial Development Association, which has its headquarters at Cork. He has also skillfully drawn a design of the trade-mark (on file at the Bureau of Manufactures) which bears words in the Gaelic language signifying "Made in Ireland."

A BUSINESS LANGUAGE.

ESPERANTO AS A MEDIUM OF TRADE COMMUNICATIONS.

Consul H. L. Spahr, of Breslau, reports a movement in favor of making Esperanto a universal language. He writes:

All over the world trade associations, tourist clubs, scientific societies, and other organizations are seeking a universal language. Whenever an international congress is held, the need for such a language is recognized and discussed. An international committee is being formed, which is to select a universal auxiliary language subject to the following generally accepted limitations: It must be able to serve the needs of daily life, the demands of trade and commerce, and the purposes of science. It must be easy for people of average education to learn. It should not be one of the living national languages. If the committee adopt a language it is almost certain to be Esperanto.

Esperanto is a language with few rules and no exceptions, no irregular verbs; with a pronunciation, accent, and spelling that can be learned in one lesson, and with a small vocabulary, many of whose words learners already know or can guess; besides it is clear, flexible, and rather sonorous.

RECOMMENDED TO AMERICAN MANUFACTURERS.

American manufacturers and dealers should make use of this medium in their campaigns for trade with foreign countries. Chambers of commerce and trade organizations should give it a careful consideration. Exporters should study it and have their managers, clerks, and traveling salesmen study it. There are Esperanto groups in the 24 leading cities of Germany and new ones are forming. There are in the world about 425 groups, besides 60 trade or scientific organizations, whose members either are all Esperantists, or use Esperanto when writing to a member in another country. Fourteen periodicals are printed wholly in Esperanto, 17 partly, and 19 well-known journals devote more or less space to Esperanto articles. In recent times eight international business or professional congresses have recommended or adopted Esperanto as the language to be used.

American exporters should not be behind, if Esperanto be selected; favorable action by them will hasten its adoption. Indifference may give their trade rivals an advantage. Our manufacturers may wake up some day to see English, French, and German salesmen running over the world, glibly talking Esperanto wherever they go, and taking large orders. This is no exaggeration, for Esperanto is being taught in many Japanese schools, and Peru publishes an Esperanto journal. In France and England the movement is especially strong. With Esperanto, in case a correspondent thinks the addressee will not be able to read his letter, he has only to put in a key in the addressee's language, or refer him to the nearest Esperanto group, which will translate for him free of charge. This key is published in many languages, and by its use the letter can soon be read. The key weighs only 5 grams (0.17 ounce.)

WALL PAPER ABROAD.

AMERICAN GOODS NOT POPULAR IN CAPE COLONY.

The subject of foreign trade in wall paper is reported upon by several American consuls. Consul-General Julius G. Lay, at Cape Town, learns that there is very little sale for American wall paper in Cape Town, although good stocks are held by nearly all the wall-paper merchants.

It is stated that the size of American paper, which is 18½ inches against the 21 inches of the English goods after trimming, the undesirable patterns, and the higher prices all operate against the sale of the American goods. If the American manufacturer will show samples of goods similar to the English styles, there is no reason why a fair share of the trade could not be secured. The German manufacturer has gained a good foothold in the sale of wall paper by following English patterns in making a paper which can be sold at a low price. The ruling price for cheaper grades of paper, which are most in demand is 24 cents per roll of 36 feet. In 1905 the total imports

into Cape Colony of wall paper amounted to $148,146, of which $121,769 came from the United Kingdom, $22,507 from Germany, $798 from Canada, and $515 from the United States. [A list of dealers in wall paper at Cape Town who import in large quantities is indexed at the Bureau of Manufactures.]

FRANCE SUPPLIES ALGERIA.

Consul James Johnston reports from Algiers that practically all the wall paper employed in Algeria comes from France, as it enjoys a discriminating protective duty. [The principal wall-paper houses at Algiers and Oran are indexed at the Bureau of Manufactures.]

CLOSE COMPETITION IN ITALY.

Consul James E. Dunning, of Milan, reports that there is no extended market for wall papers in that part of Italy, on account of the successful occupancy of the field by other firms who have made a study of Italian demands. Germany has captured one-half of the $160,000 wall-paper import trade of Italy, one-third coming from France, and the rest from Austria and Switzerland, America being represented by $500. Plain papers are much in demand in Italy, and those carrying designs show quiet colors and an almost total absence of gold. [A few names of Italian wall-paper dealers are on file at the Bureau of Manufactures.]

IMPORTS AND EXPORTS.

TRADE IN ARTICLES OF LUXURY—METALLIC GOODS.

According to figures furnished by the Bureau of Statistics the value of automobiles imported into this country during 1906 was nearly $5,000,000. The exports of these machines for the same time amounted to $4,409,186, of which the United Kingdom took over $1,000,000 worth; other European countries, $1,000,000; Mexico, $717,523, against $192,452 in 1905; West Indies and Bermuda, $241,000; South America, $167,000; Australia, nearly $200,000, and British West Indies, $34,111.

The value of copper imported into the United States in 1906 was over $37,000,000, including $6,750,000 worth of copper ore. On the other hand, the United States exported in the same time over $90,000,000 worth of that metal, of which $85,000,000 represented ingots, less than $2,000,000 ore, and between $4,000,000 and $5,000,000 copper manufactures. The importing of such large quantities of copper, nearly all of which comes from Canada and Mexico, apparently grows out of the fact that the United States has superior smelting and refining facilities. A considerable part of the $37,000,000 worth of copper imported is reexported.

The imports of raw cotton, chiefly Egyptian, a different quality from that produced in the United States, amounted to nearly $11,000,000 last year, which does not include over $1,000,000 worth of waste. The value of the cotton goods imported was approximately $69,000,000, or more than 50 per cent in excess of the value of cotton manufactures exported. This importation was largely the high grade articles produced by hand, such as laces, embroideries, etc.

During 1906 the United States exported 31,518,494 pounds of green coffee, valued at $3,870,592. This coffee was the product of Porto

Rico and Hawaii. There was also reexported $13,500,000 pounds of coffee of foreign production, chiefly to Canada and Mexico.

The quantity and value of champagne imported in 1906 was 394,727 dozen quarts, worth $5,855,425, against 401,514 quarts, valued at $5,995,651, in 1905. During the period from 1892 to 1906 the importation of diamonds and precious stones increased from less than $14,000,000 to $44,000,000, and of laces and embroideries from $16,000,000 to $44,000,000. The imports of tin plate have been reduced from more than 1,000,000,000 pounds in 1901 to 127,000,000 pounds in 1906, while the exports of manufactured tin plate have grown from $31,082 in 1900 to $1,001,688 in 1906.

SODIUM TRANSMISSION LINES.

CHEAPER METHOD INVENTED FOR CONDUCTING ELECTRICITY.

The use of sodium for overhead transmission is attracting the attention of electricians. It is said to be cheap and a good conductor of electricity, but as its marked affinity with oxygen causes it to ignite when placed in contact with water, its employment in the form of a conductor would be limited, probably, to overhead transmission lines or feeders for railway work. The general process of constructing sodium conductors is to take standard wrought-iron pipes and heat them to a point well above the melting temperature of sodium. The sodium is then melted in special kettles and is run into the pipes, solidifying when cool. There is said to be no marked depreciation of either the sodium or the pipe if the latter be properly protected by a coat of weather-proof paint.

For the same conductivity the price of the complete sodium conductor is much below that of copper cables, being in small sizes not more than 50 per cent and in large sizes not more than 20 per cent of the cost of copper. For instance, a half-inch wrought-iron pipe filled with sodium has a capacity of 109 ampères, and costs about 3½ cents per foot, against 8½ cents for a copper line of the same capacity. A 6-inch sodium conductor would carry 8,130 ampères, the cost of the line being about $1.40 per linear foot, as compared with $6.30 per linear foot for copper. These figures were estimated on the basis of 7½ cents per pound for sodium and 16 cents per pound for copper.

Snake-Bite Lancet.

According to Consul-General W. H. Michael, of Calcutta, a lancet invented by Sir Lauder Brunton, called the "snake-bite lancet," has been introduced in India with splendid results. It is being widely distributed by the authorities to police outposts in Bengal and Assam, the central provinces and united provinces, and also to all village officials by some of the native States in upper and central India. A report by one person is to the effect that he had saved the lives of twenty persons bitten by cobras and karaits within the last year by the use of one lancet. The use of this simple instrument may be the means of saving thousands of lives annually in India, and hence will prove a great blessing.

INTERNATIONAL EXPOSITIONS.

GERMANY.

HYGIENE AND DEMOGRAPHY AT BERLIN.

The State Department has been advised by the Ambassador of Germany that the Fourteenth International Congress on Hygiene and Demography will take place this year at Berlin, from the 23d to the 29th of September. In his note the Ambassador states that Her Majesty the German Empress has deigned to take the congress under her patronage, and that the committee on the organization would welcome with thanks the same participation in this meeting as was extended to previous like congresses by all countries through the attendance of numerous experts, and especially of official representatives of the governments.

In a second note to the Department of State in relation to the congress the Ambassador says:

On the occasion of the Fourteenth International Congress on Hygiene and Demography, to be held in September of this year, a hygienic exposition is being organized. It will be of a scientific character and present as complete and synoptic a view as possible of the present status of scientific research in the domain of hygiene. Arrangements have been made to have the hygienic institutes of the German universities participate in the exposition.

In view of the international character of the Congress, the President of the exposition committee, Privy Councilor Professor Doctor Rubner, of Berlin, has also requested some of the most important foreign hygienic institutions, among others the Carnegie Laboratory, of New York, to send exhibits to the exposition.

By direction of the Imperial Government, the United States is invited to send official delegates to the Congress, and a number of invitations have been placed at the disposal of the Department of State.

BOAT DISPLAY AT KEHL—UNITED STATES INVITED.

Baron von Sternburg, the German ambassador at Washington, has informed the Department of State that an international exhibition of motor boats will be held at Kehl, Germany, from June 14 to 30, inclusive, 1907, under the patronage of His Royal Highness Prince Henry of Prussia. The ambassador transmits several copies of the provisional programme and general regulations, as well as application blanks for intending exhibitors. A few of these blanks, with copies of a circular explaining the scope of the proposed exhibition and regulations that will govern it, have been placed with the Bureau of Manufactures, and will be sent to those who may apply for them. All communications of intending exhibitors should be addressed to Internationale Motor-Boat-Ausstellung, Kiel 1907, Martensdamm 28–30, Kehl, Germany.

INTERNATIONAL SPORTS AT BERLIN.

The International Sports Exhibition to be held at Berlin, Germany, from April 20 to May 5, inclusive, will offer opportunities for American manufacturers to exhibit carriages, including vehicles of every description used for riding and driving, saddlery, stable fittings, etc.

The exhibition will include sailing and rowing paraphernalia, motor boats, outdoor games, sport and hunting outfits, skating, sledging, tobogganing, etc. Forms of application may be had from the Kanzler-Amt des Deutschen Sport-Vereins, Mittelstrasse 23, Berlin N.W.7. It is announced that the sale of exhibits will be permitted, but goods sold may not be removed until the close of the exhibition without leave of the managers.

BELGIUM.

ANNUAL EXPOSITION SALE PLANNED AT ANTWERP.

An annual International and Colonial Exposition pertaining to agriculture, industry, and commerce is planned at Antwerp, Belgium, to open in May and close in September next.

It is under the patronage of the governor of the province of Antwerp, the burgomaster of the city of Antwerp, and other prominent citizens. A distinctive feature will be that exhibitors will be at liberty to sell their exhibits at any time without restriction or expense, so that the exposition will be more in the nature of a fair. In its prospectus the committee says:

> Encouraged by the services rendered, beyond question, to manufacturers and merchants by the commercial fairs which have taken place each year at Niji-Novgorod, Leipzig, and Paris, where the volume of business aggregates hundreds of millions of francs, we have decided to organize each year at Antwerp, following the example of the above-mentioned cities, a fair or exposition sale aimed to bring together producers and buyers of all countries at a fixed date in the same place, certain to be able to arrange there either the exchange or sale of their goods, or to secure novelties and everything needful for their business, or to stimulate the establishment of new commercial branches.
>
> Antwerp, the commercial metropolis of Belgium, is the best situated city in the world for the realization of such a project. The great navigation companies which have their headquarters there, the importance of the port, its central situation, render access to it rapid and inexpensive for travelers as well as merchandise.
>
> Desirous of combining the artistic with the useful, and giving to this great enterprise a fame worthy of its importance, we have decided to locate this exposition in a splendid park traversed by the electric tramway and having an area of about 50 acres. It is magnificently shaded by ancient trees and varied with water courses.

The prospectus further states that all correspondence in relation to the proposed exposition should be addressed to Mr. Auguste Hagens, administrateur, 6 Rue des Beggards, Antwerp, Belgium. American firms desiring to exhibit and which need a representative there will be furnished by the Bureau of Manufactures with the name of a Belgian business man who has written to the Department of State desiring to place exhibits of American goods.

NETHERLANDS.

DAIRY CONGRESS AT THE HAGUE.

The Department of State has received from Minister Van Swinderen an invitation to the United States to be represented at the Third International Dairy Congress which will meet at The Hague on the 16th to the 20th of next September. The congress will be similar to former congresses held at Brussels and Paris in 1903 and 1905, and will include three sections, as follows: 1, legislation; 2, hygiene; 3, industry.

The minister also announces that an international agricultural exhibition will be held simultaneously with the congress. The exhibition

will include cattle, dairy produce, horses, pigs, sheep, goats, poultry and tame rabbits, bee farming, agricultural products, cultivation of heathland, forestry, land improvement and river fishing, State protection of agriculture, newest discoveries in agricultural machinery, and horseshoeing.

Dr. A. J. Swaving, 88 Lange Voorhout, The Hague, is the general secretary, to whom all communications relating to the exposition should be addressed.

AUSTRIA-HUNGARY.

EXPOSITION OF BAKERS AT BUDAPEST.

The ambassador of Austria-Hungary has notified the Department of State that the National Union of Hungarian Bakers is organizing a grand international exposition of bakery, to be held at Budapest from May 15 to June 30, 1907. This will be the first international exposition of that branch of industry, and His Imperial and Royal Highness Archduke Joseph has been asked to take it under his patronage. The royal Hungarian prime minister, Dr. Alexander Wekerle, will serve as honorary president, and Josef Szterenyi, secretary of state for the royal Hungarian ministry of commerce, as president. Julius Steiner, vice-president of the National Union, has been selected as manager of the exposition. The ambassador, by direction of his Government, extended an invitation to the United States to participate in the exposition.

RUSSIA.

NAVIGATION CONGRESS AT ST. PETERSBURG.

Consul-General Ethelbert Watts advises that, according to an official Russian announcement, the Eleventh International Navigation Congress will be held in St. Petersburg, in May, 1908.

The purpose of the congress is to create an increase of general interest in matters of navigation, naval construction, the importance of waterways; the study of theoretic and practical questions relating to hydrotechnical construction (sea and river); the industrial, commercial, and technical exploitation of rivers and seaports. Reports on these subjects will be publicly discussed and scientific excursions organized in order to study hydrotechnical works, seaports and waterways in Russia.

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VALUES OF FOREIGN COINS AND CURRENCIES.

[As given by the Director of U. S. Mint and published by Secretary of the Treasury Jan. 1, 1907.]

COUNTRIES WITH FIXED CURRENCIES.

Countries.	Monetary unit.	Value in U.S. gold.	Coins.
Argentina	Peso	$0.96,5	Gold—argentine ($4.82,4) and ½ argentine; silver—peso and divisions.
Austria-Hungary	Crown	.20,3	Gold—20 crowns ($4.06,2) and 10 crowns; silver—1 and 5 crowns.
Belgium	Franc	.19,3	Gold—10 and 20 francs; silver—5 francs.
Brazil	Milreis	.54,6	Gold—5, 10, and 20 milreis; silver—¼, 1, and 2 milreis.
British N. A. (except Newfoundland).	Dollar	1.00	
British Honduras	do	1.00	
Chile	Peso	.36,5	Gold—escudo ($1.82,5), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Colombia	Dollar	1.00	Gold—condor ($9.64,7) and double condor; silver—peso.
Costa Rica	Colon	.46,5	Gold—2, 5, 10, and 20 colons ($9.30,7); silver—5, 10, 25, and 50 centimos.
Denmark	Crown	.26,8	Gold—10 and 20 crowns.
Ecuador	Sucre	.48,7	Gold—10 sucres ($4.8665); silver—sucre and divisions.
Egypt	Pound (100 piasters).	4.94,3	Gold—5, 10, 20, and 50 piasters; silver—1, 2, 5, 10, and 20 piasters.
Finland	Mark	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Mark	.23,8	Gold—5, 10, and 20 marks.
Great Britain	Pound sterling	4.86,6½	Gold—sovereign (£) and half sovereign.
Greece	Drachma	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	Gourde	.96,5	1, 2, 5, and 10 gourdes; silver—gourdes and divisions.
India	Pound sterling[a]	4.86,6½	Gold—sovereign (£); silver—rupee and divisions.
Italy	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan	Yen	.49,8	Gold—5, 10, and 20 yen; silver—10, 20, and 50 sen.
Liberia	Dollar	1.00	
Mexico	Peso[b]	.49,8	Gold—5 and 10 pesos; silver—dollar[c] or peso and divisions.
Netherlands	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Dollar	1.01,4	Gold—$2 ($2.02,7).
Norway	Crown	.26,8	Gold—10 and 20 crowns.
Panama	Balboa	1.00	Gold—1, 2½, 5, 10, and 20 balboas; silver—peso and divisions.
Peru	Libra	4.86,6½	Gold—½ and 1 libra; silver—sol and divisions.
Philippine Islands	Peso	.50	Silver—peso, 50, 20, and 10 centavos.
Portugal	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Ruble	.51,5	Gold—5, 7½, 10, and 15 rubles; silver—5, 10, 15, 20, 25, 50, and 100 copeks.
Spain	Peseta	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden	Crown	.26,8	Gold—10 and 20 crowns.
Switzerland	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Piaster	.04,4	Gold—25, 50, 100, 250, and 500 piasters.
Uruguay	Peso	1.03,4	Gold—peso; silver—peso and divisions.
Venezuela	Bolivar	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

COUNTRIES WITH FLUCTUATING CURRENCIES.[d]

Country and monetary unit.	Apr. 1, 1906.	July 1, 1906.	Oct. 1, 1906.	Jan. 1, 1907.
Bolivia:	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Silver boliviano	47.8	48.0	48.5	51.0
Central America:				
Silver peso	46.5	48.0	48.5	51.0
China:				
Amoy tael	78.3	78.8	73.0	83.6
British dollar	.....	.....	52.3	55.0
Canton tael	78.1	78.5	79.2	83.3
Chefoo tael	74.9	75.3	76.0	79.9
Chinkiang tael	76.5	76.9	77.6	81.6
Fuchau tael	72.4	72.8	73.5	77.3
Haikwan (customs) tael	79.7	80.1	80.8	85.0
Hankow tael	73.3	73.7	74.3	78.2
Hongkong dollar	51.5	51.8	52.3	55.0
Kiaochou	77.3	77.7	77.0	81.0
China—Continued.				
Mexican dollar	.....	.....	52.6	55.4
Nankin tael	77.5	77.9	78.6	82.7
Ningpo tael	75.3	75.9	76.4	80.3
Newchwang tael	73.4	75.7	74.5	78.4
Peking tael	76.3	76.8	77.5	81.5
Shanghai tael	71.5	71.9	72.6	76.3
Swatow tael	72.3	72.7	73.4	77.2
Takau tael	78.8	79.2	79.9	84.1
Tientsin tael	75.9	76.3	77.0	81.0
Persia:				
Silver kran	8.8	8.8	8.9	9.4
Straits Settlements:				
Silver dollar	.....	.....	52.3	56.8

[a] The rupee, $0.32¼, 15 to the sovereign, constitutes the money of account.
[b] Seventy-five centigrams fine gold.
[c] Value in Mexico, $0.498.
[d] Coins of silver-standard countries are valued by pure silver content at average market price of silver for the three months preceding date of circular issued by U. S. Treasury Dept.

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